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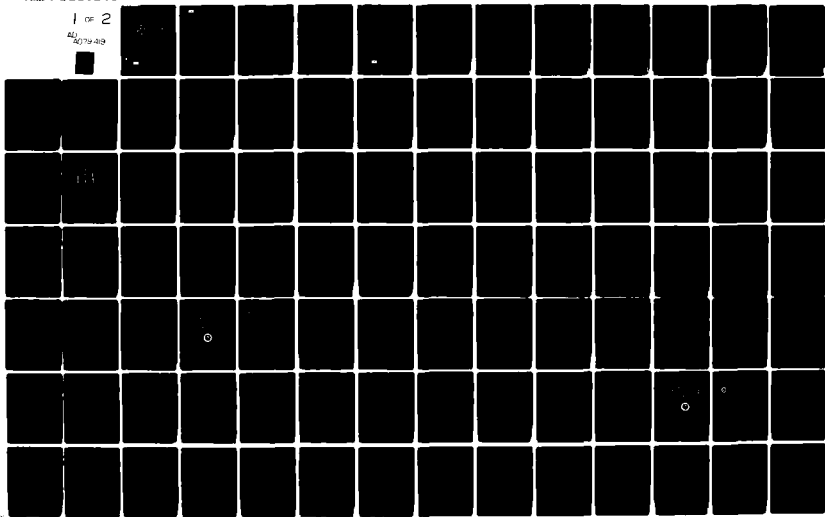
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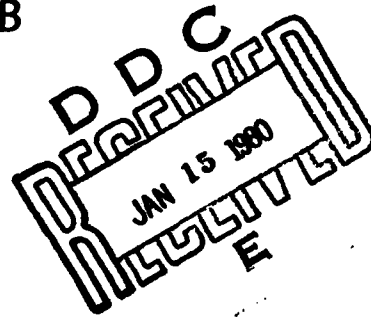
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# FACTORS THAT AFFECT THE CAREER DECISION OF MARINE CORPS PILOTS AND FLIGHT OFFICERS

Main Text and Appendixes A and B

Charles A. Millard, Major, USMC



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1. Enclosure (1) is forwarded as a matter of possible interest.
2. This Research Contribution was prepared as a result of a request by the Deputy Chief of Staff for Aviation at Headquarters Marine Corps. Based on an analysis of factors that affect the career decisions, it recommends actions that could be taken to improve the retention of Marine Corps pilots and flight officers.
3. Research Contributions are distributed for their potential value in other studies and analyses. They do not necessarily represent the opinion of the U.S. Marine Corps or the Department of the Navy.

*C. Bernard Barfoot*  
C. BERNARD BARFOOT  
Acting Director  
Marine Corps Operations  
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6 **FACTORS THAT AFFECT THE  
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Main Text and Appendixes A and B.

10 Charles A. Millard Major, USMC

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Marine Corps Operations Analysis Group

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#### ACKNOWLEDGEMENT

The author wishes to gratefully acknowledge the contribution of the 3,317 pilots and flight officers who took the time and effort to respond to our lengthy survey. A special thanks goes to the 1,615 respondents who took the additional time to make narrative comments. Although the study report did not lend itself to a separate treatment of these comments, the contributors may be assured that they were both read and used. In fact, they were a prime source of information for interpreting what might otherwise have been an intimidating volume of data.

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## SUMMARY: FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

### BACKGROUND AND PURPOSE

→ The availability of Naval Aviators (pilots) and Naval Flight Officers (NFOs) on active duty in the Marine Corps has significantly declined over the past several years. In 1975, the actual pilot/NFO inventory was 99 percent of the billet requirement. By 1979, however, the inventory had dropped to 90 percent of that requirement, with the rate of decline since 1975 being about 2.25 percent per year. The purpose of ~~this analysis~~ *this analysis seeks* ~~analysis is~~ to identify the factors that have contributed to this high attrition, and to recommend actions that the Marine Corps might take to improve retention of their pilots and NFOs.

### METHOD OF ANALYSIS

*→ see p 14*  
This analysis is based primarily on responses to a recent survey of all active duty and some recently separated pilots and NFOs. The responses were tabulated and analyzed to identify factors that significantly affect the career decision.

### FINDINGS

Our principal findings are:

- The following factors have the greatest influence on the career decisions of pilots and NFOs: personnel management, family, job content, economics (for company grade officers), and benefits (for field grade officers).
- Active duty company grade respondents and all separated respondents are most concerned and least satisfied with personnel management, especially policies regarding duty assignment.
- Active duty field grade respondents are most concerned and least satisfied with retirement and medical benefits.
- Only active duty company grade respondents are concerned (and dissatisfied) with the economic factor, which includes salary and Aviation Career Incentive Pay (ACIP) as components.

- Both company and field grade respondents are reasonably satisfied with the nominal content of their job--they view it as worthwhile and challenging.
- All respondents view family life as important. Company grade respondents are slightly dissatisfied with the way family life is affected by their career, while field grade respondents are marginally satisfied.
- Only 22 percent of company grade respondents intend to stay until retirement; another 38 percent are uncertain of their career intentions.
- Career intentions are strongly affected by a knowledge of the nature of the next duty assignment. Of the company grade respondents, 74 percent would be encouraged to resign if assigned to a non-flying billet. Conversely, assignment to a flying billet would encourage 70 percent to remain. About one-half of the company grade respondents and one-third of the field grade respondents considered that termination of the Proficiency Flying Program had an adverse effect on job satisfaction and career intentions.
- Although most respondents do not attribute a cause-and-effect relationship to airline hiring and pilot/NFO attrition, about 30 percent feel that airline hiring patterns do affect retention.
- Respondents do not feel that the Marine Corps treats them as unique, deserving individuals, is responsive to their needs, or considerate of their desires. About 60 percent of the company grade respondents feel that resignation would improve the quality of their life.
- Reserve officers do not consider the Standard Written Agreement (SWAG) and Extended Active Duty (EAD) options to be positive career incentives.
- Unit deployment is widely endorsed and is believed to enhance retention.

#### CONCLUSIONS

Based on an analysis of the responses to the survey, we conclude that:

- Marine Corps personnel management practices do not satisfy the basic needs of pilots and NFOs for a secure and rewarding career in which attention is paid to their individual problems and desires.

(cont)

- Any personnel policy or procedure that restricts the flying opportunities available to a pilot or NFO, ~~denies~~ fulfillment of his need for self-expression, ~~precludes~~ job satisfaction, and contributes to attrition.
- Assignment policies should be revised to increase the proportion of career time (especially in early years) that pilots and NFOs spend in flying billets;
- An economic incentive (e.g., bonus or increased ACIP) would reduce attrition, and
- Airline hiring contributes to (but does not necessarily cause) attrition, by providing an opportunity for dissatisfied pilots and NFOs to seek flying careers outside the Corps.

#### RECOMMENDATIONS

Actions are recommended

Based on the findings and conclusions of this study, the following actions are recommended to reduce the attrition of Marine Corps pilots and NFOs:

- Reinstate the Proficiency Flying Program.
- Increase the Pilot Training Rate (PTR).
- Commence payment of a financial bonus.
- Increase Minimum Service Requirement (MSR) to five years.
- Adopt a dual career path for pilots and NFOs.
- Encourage all levels of leadership and administration to be more responsive to individual needs.

Each recommendation is discussed below.

#### Proficiency Flying

The primary goal of most pilots and NFOs is to fly. So long as significant numbers of non-flying (DIFDEN) billets exist, a secondary means of satisfying this goal must exist. Although studies have shown that proficiency flying does little to maintain flying skills (see reference 1), its termination is viewed as reducing retention. We believe that the cost of proficiency flying would be more than justified by its effect on retention.

### Pilot Training Rate (PTR)

In the face of high and increasing attrition, the current PTR is not sufficient to provide the required number of pilots and NFOs. The PTR must be adjusted to return the force to the desired level and maintain it there.

### Financial Bonus

The economic factor was found to be important for company grade respondents, but not particularly important for most of the field grade respondents. There is evidence that a bonus directed at officers reaching the end of their MSR would be an effective measure to reduce attrition. Reference 2, for example, calculates the cost and effect of several such financial incentive (bonus and ACIP) plans on Navy pilot retention. Figure I illustrates, in part, the findings of reference 2. The least expensive plan, a \$5,000 annual bonus paid for the three years after MSR (\$5,000/3 years), costs the Navy \$6.3 million (1978 dollars) annually. Note that an ACIP increase does not appear to be as economically attractive as a bonus, since it would be applied to all pilots and NFOs, rather than only to those in the critical middle-career years. To meet Navy pilot requirements, reference 2 recommends a bonus plan of approximately three months' base pay annually for continuation from MSR to four years after MSR. We recommend such a plan for the Marine Corps as a temporary solution to the problem of attrition.

### Minimum Service Requirement (MSR)

The MSR for Marine Corps pilots and NFOs should be increased from four to five years--consistent with the current Navy MSR. This would increase the "payback" period by 25 percent; it might also have a positive effect on retention, since the inclination to continue in service is highly correlated with total service time. The effect of increasing MSR on the supply of pilots and NFOs is not known; however, the Navy and Air Force recently increased their MSR<sup>1</sup> without experiencing an adverse effect on supply.

### Dual Career Path

This recommendation, like that for a proficiency flying program, is based on the desire of pilots and NFOs to fly for a greater proportion of their career. Most company grade officers realize that promotion to field grade status means more staff responsibility and less opportunity to fly. Many,

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<sup>1</sup>The Air Force increased MSR from five to six years; the Navy increase was from four-and-a-half to five years.

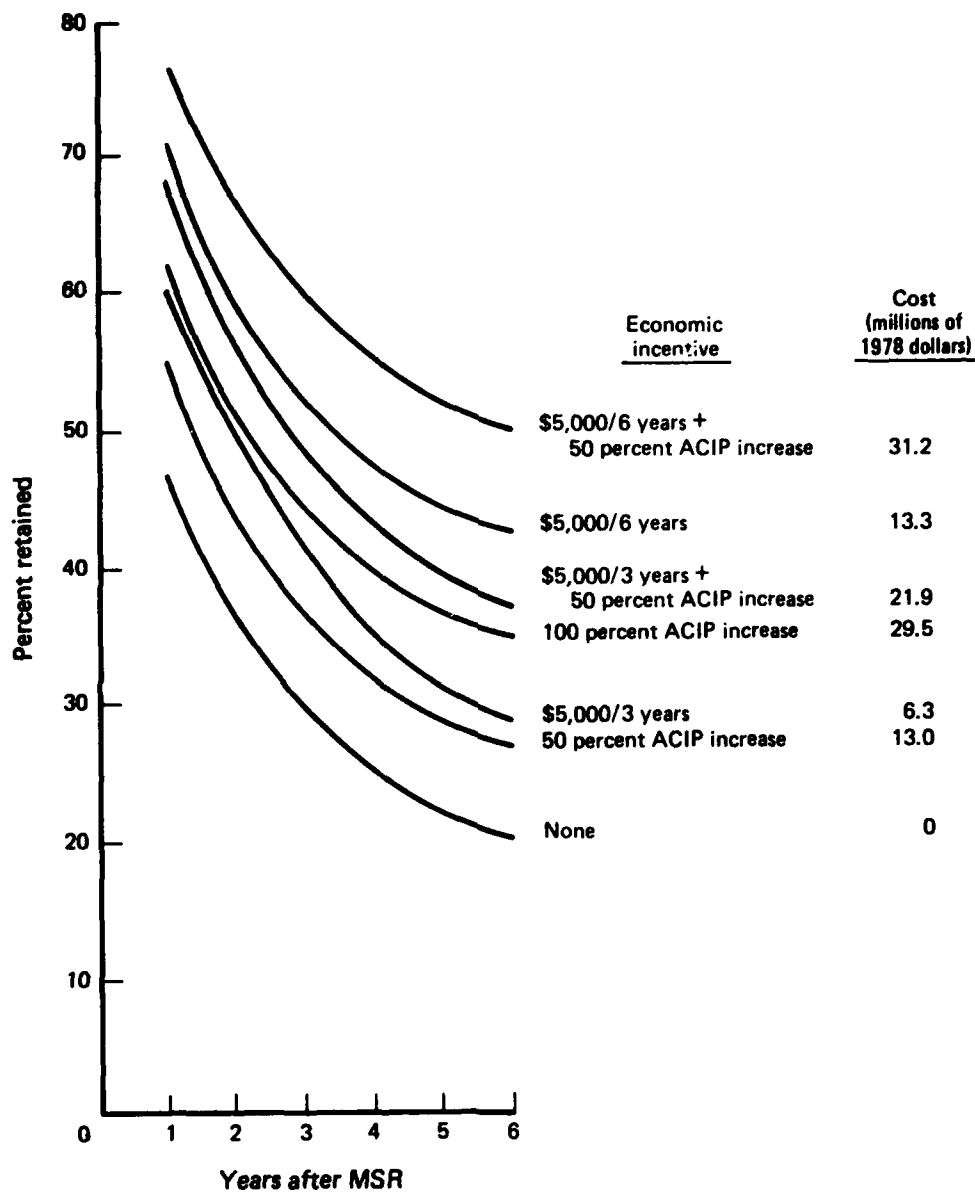


FIG. 1: COSTS OF ALTERNATIVE ECONOMIC INCENTIVES AND THEIR EFFECTS ON NAVY PILOT RETENTION<sup>a</sup>

<sup>a</sup>Source: reference 2.

therefore, will elect to leave the service to pursue a (more nearly) full-time flying career. If, however, they are given the option of selecting a career path that excludes promotion to staff and command jobs, they might be more inclined to stay. The duty of these officers would be limited to flying only. They may be fixed in rank, progressing in salary only—or they may progress in both pay and rank, similar to Limited Duty Officers (LDOs). Those selecting the unlimited branch of the dual path would be eligible for command and would fly only to the extent necessary to remain abreast of current tactics and technology.

The dual career path would obviously necessitate a major change in the Marine Corps management of aviation careers. Such a change should not be made without thorough study and careful consideration. It is not the intent of this study to make any specific recommendations in this area, but, rather, to present a general idea for consideration.

#### Attention to Individual Needs

The respondents to our survey overwhelmingly denounced the familiar adage that: "The Marine Corps takes care of its own." They do not feel that the Marine Corps cares about either their needs or desires. This may not be true—but it is the perception rather than the fact that is important to career decisions. As long as this attitude remains prevalent, no significant progress in alleviating attrition is likely. It is beyond the scope of this study to contemplate measures that might be taken to improve morale, but a myriad of things could be done. One recommendation is to provide the results of this study, and the actions that are being taken as a result of it, to all pilots and NFOs. This would be concrete evidence that the Marine Corps does care.

## SECTION I

### INTRODUCTION

#### BACKGROUND

Over the past several years, the Marine Corps aviation community has experienced an increasingly high rate of attrition among its Naval Aviators (pilots) and Naval Flight Officers (NFOs). Figure 1 illustrates the magnitude of this problem. For example, unprogrammed attrition<sup>1</sup> rose by 48 percent between FY 1977 and FY 1978. Unprogrammed attrition for the second half of 1979 is assumed to be the same as for the first half, constituting a 57-percent increase over 1978.

The ability of the Marine Corps to satisfy its pilot and NFO requirements is further jeopardized by a declining Pilot Training Rate (PTR). As illustrated in figure 2, the PTR declined 31 percent between 1974 and 1979. Although the 1978 billet requirement was reduced by seven percent, the proportion of billets that could be filled (i.e., availability) dropped from 99 percent in 1975 to 90 percent in 1979; see figure 3. If the trend of the past five years were to continue for the next ten, nearly half of the pilot and NFO seats would be empty by 1990. Clearly, steps must be taken to stop the exodus of these highly skilled officers from the Marine Corps. The alternative is a serious degradation of the ability of Marine Aviation to successfully execute its mission.

#### OBJECTIVES

As part of an attempt to stabilize manpower levels within the pilot and NFO communities, the Deputy Chief of Staff for Aviation at Marine Corps Headquarters requested (see appendix A) that the Marine Corps Operations Analysis Group (MCOAG) assist in an analysis to:

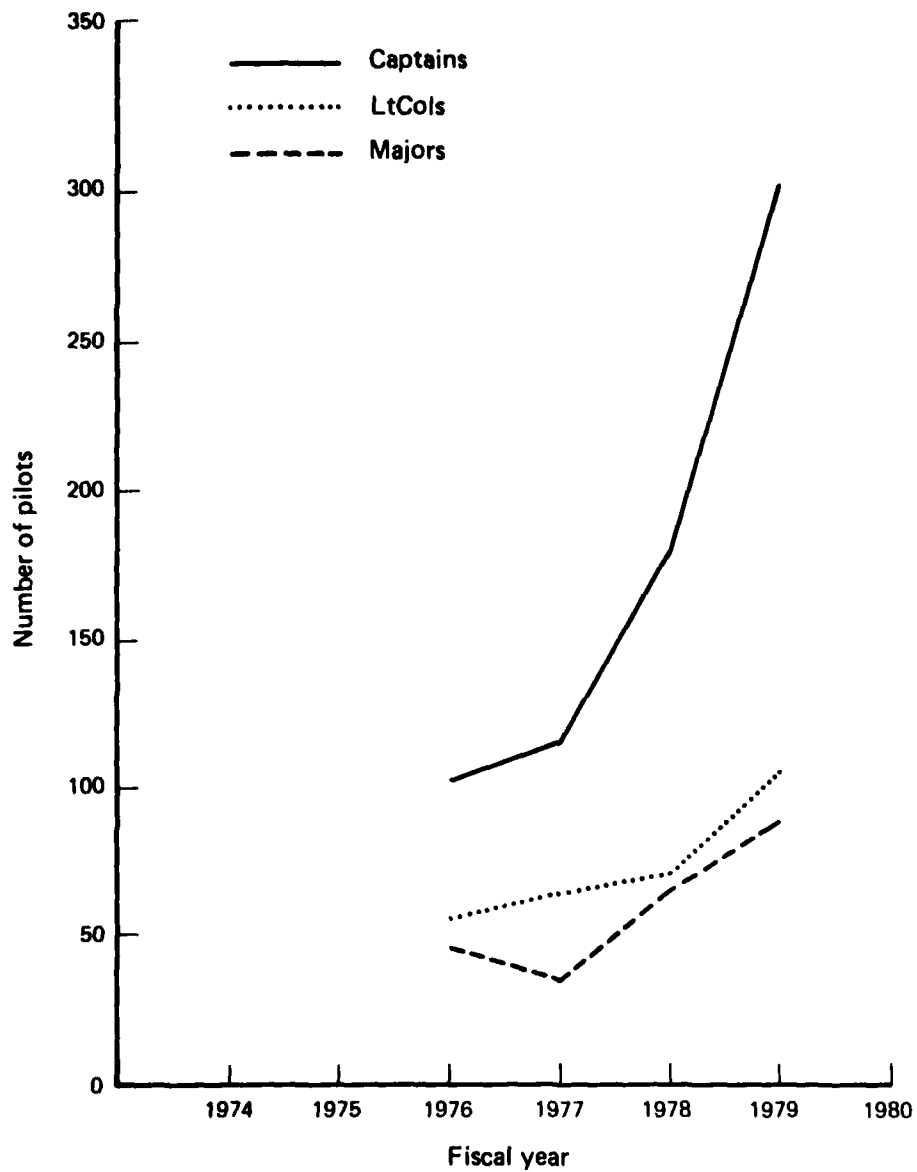
- Identify the factors that motivate the career decisions of Marine Corps pilots and flight officers, and
- Recommend actions to improve retention.

#### METHOD OF ANALYSIS

The factors that motivate a decision to stay in or leave the Marine Corps are both complex and personal. Therefore, we

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<sup>1</sup>Unprogrammed attrition is that from resignations or retirements--as opposed to end of obligated service.



**FIG. 1: UNPROGRAMMED ATTRITION FOR MARINE CORPS PILOTS**



elected to survey the people involved to let them speak for themselves. Two questionnaires (see appendix B) were designed and distributed by MCOAG. One questionnaire was sent to all Marine Corp pilots and NFOs on active duty during March 1979 (approximately 4,300); the other went to those who had been separated during 1978 and for whom mailing addresses were still available (approximately 130). The response rates were 75 percent for the active duty group and 67 percent for the recently separated group.

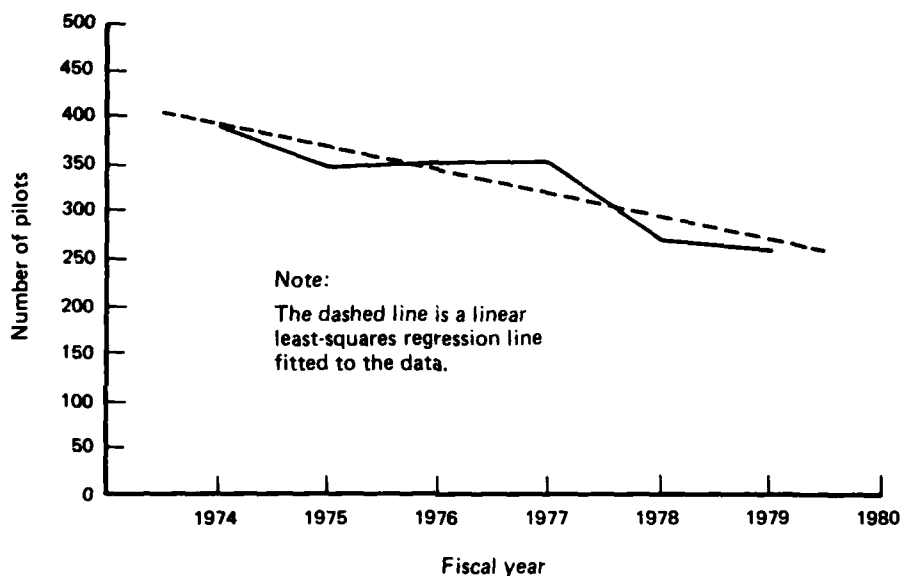
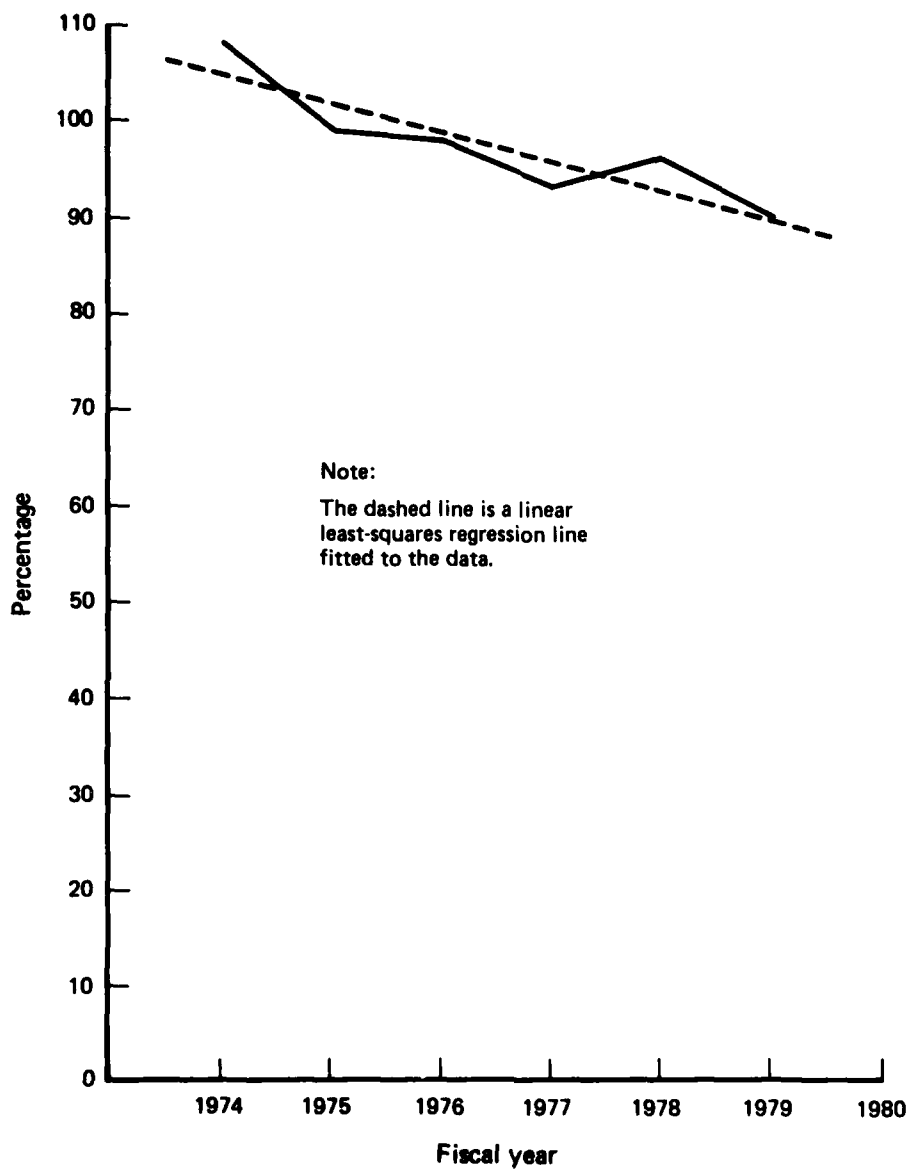


FIG. 2: PILOT TRAINING RATE

Survey questions with:

- The demographic characteristics and general attitudes of the respondents,
- The potentially important aspects of the career decision, and
- The degree of satisfaction toward life in the Marine Corps.

Survey responses thus allowed, for any given demographic subset of respondents, a comparison of the importance and satisfaction attributed to the factors that affect career decisions.



**FIG. 3: AVAILABILITY<sup>a</sup> OF MARINE CORPS PILOTS  
(LTCOL AND BELOW)**

<sup>a</sup>Availability = (Inventory ÷ Requirement)

## SECTION II

### THEORIES OF WORK MOTIVATION AND JOB SATISFACTION

Extensive research has been conducted in all areas of human motivation. Job satisfaction in particular, being a prime determinant of employee productivity and corporate profit, has been the subject of extensive investigation. Admittedly, the typical military job is considerably different from the typical civilian job. However, both military and civilian employees are motivated by the same fundamental needs and aspirations. The general theories regarding work motivation and job satisfaction are, therefore, applicable to our study of Marine Corps pilots and NFOs. In particular, we will discuss the theories of Maslow and Herzberg, since most of the theories in application today are derivations of their work.

#### MASLOW'S THEORY OF HUMAN MOTIVATION

Abraham Maslow hypothesized that human beings are motivated by needs, and that those needs are prioritized in what he called a "need hierarchy" (reference 3). The most basic survival needs are at the low end, while idealism and altruism are at the high end of the hierarchy. Maslow's hierarchy of needs may be described as follows:

- Physiological needs.
  - The lowest order of needs: the basic physiological necessities of life, which include food, water, oxygen, sleep, and sex.
- Safety needs.
  - The need of a person for an ordered existence in a stable environment, free of threats to his safety or existence.
- Love needs.
  - The need for affectionate relationships, group membership, and peer acceptance.
- Esteem needs.
  - The need for the respect and esteem of both self and others.
- Self-actualization needs.
  - The need for self-fulfillment, to achieve one's full potential.

Maslow felt that a person will seek to satisfy his needs by starting with the lowest and most basic, systematically moving up the hierarchy toward self-actualization and total satisfaction. Behavior at any given time is dominated by the most basic need that remains unfulfilled.

#### HERZBERG'S MOTIVATION-HYGIENE THEORY

Frederick Herzberg, building on the work of Maslow, classified all work variables according to whether they were more apt to contribute to satisfaction or to dissatisfaction in the work environment (reference 4). His classification scheme is:

- Motivation factors.
  - Satisfiers: job content factors that contribute to job satisfaction, including achievement, recognition, responsibility, advancement, and the work itself.
- Hygiene factors.
  - Dissatisfiers: job content factors that contribute to job dissatisfaction, including salary, company policy and administration, supervision, interpersonal relations, and working conditions.

Herzberg likened his hygiene factors to the basic needs in Maslow's need hierarchy. He felt they were predominant and if unfulfilled would dominate the behavior of anyone attempting to alleviate his dissatisfaction(s). The motivation factors, then, correspond to Maslow's higher-order social needs and contribute directly to job satisfaction. A basic principle of Herzberg's theory is that these basic hygiene factors cannot contribute to satisfaction, only to the avoidance of dissatisfaction. Conversely, failure to fulfill a motivator (social) need can preclude the attainment of job satisfaction, but does not necessarily produce dissatisfaction.

Since our analysis will demonstrate that Marine Corps pilots and NFOs are concerned with both classes of needs, a clear understanding of their relationship is important. Consider, for example, salary and responsibility. A person whose salary is insufficient to satisfy his basic (hygiene) needs for food and shelter will experience dissatisfaction. The amount of responsibility that his job involves will probably be irrelevant in light of his concern for the more fundamental necessities of life. No amount of responsibility would eliminate that concern. The more basic need would dominate. However, once that person achieved economic security, his thoughts would inevitably turn to more altruistic goals--like job responsibility. At that point, it would be fruitless to continue increasing his salary. A person who is highly (over) paid and unmotivated by

challenge and responsibility will experience dissatisfaction, usually because he feels he has not earned a high income.

Maslow and Herzberg agree that economic measures alone cannot produce job satisfaction. In order to keep a worker happily employed and satisfied, one must (for example) first satisfy his economic needs, then his need for responsibility.

### SECTION III

#### THE RESPONDENTS

#### THE SURVEY POPULATION

The target population for this study was 4,411 active duty and recently separated Marine Corps pilots and NFOs, as indicated in table 1. The active duty group consisted of officers (colonel and below) on active duty as of 1 March 1979. The separated group consisted of officers released from active duty during calendar year 1978 and for whom mailing addresses were still available from Headquarters, Marine Corps. Each of the 4,411 officers was mailed a survey package containing a survey booklet, instructions, a machine-readable answer sheet, and a postage-paid, preaddressed, return envelope. Survey materials were mailed during March 1979, and responses were accepted through 26 July 1979.

TABLE 1  
TARGET AND RESPONSE POPULATIONS

	<u>Pilots</u>	<u>NFOs</u>	<u>Total</u>
<u>Active duty</u>			
Target population	3,569	709	4,278
Respondents	2,699	529	3,228
Response rate (percent)	75.6	74.6	75.5
<u>Recently separated</u>			
Target population	109	24	133
Respondents	73	16	89
Response rate (percent)	67.0	66.7	66.9
<u>Total</u>			
Target population	3,678	733	4,411
Respondents	2,772	545	3,317
Response rate (percent)	75.4	74.4	75.2

The overall response rate was 75 percent. This rate is higher than one would normally expect from this type of mail survey. Reference 5, for example, states that although response rates vary widely, those in the 80-percent range generally require three or four follow-up letters. We used a single follow-up letter, mailed to active duty pilots approximately ten days after the survey package. It is noted that the response rate for this group is not statistically different (at the 90-percent confidence level) than that of active duty NFOs, who received no such letter.

Although such an outcome was not anticipated, nine warrant officers responded to the survey. Since they form a statistically small and professionally unique group, their responses are not included in the analysis. Similarly, four respondents failed to indicate their rank and are excluded from the analysis.

#### TYPICAL RESPONDENT

The "typical" respondent to our survey is a 32-year old Captain who is married, has one child, and has spent about one-fifth of his career away from home--either deployed or stationed overseas. He has a Bachelor's degree and joined Marine aviation nine years ago for its challenge. He spends nearly ten hours a day, slightly over five days a week, at his job--but only about one-tenth of it flying. His general attitude toward the Marine Corps is favorable, but he sees a need for improvement in many areas.<sup>1</sup> If he is one of those recently separated from the Marine Corps, he is happy with his decision to leave and is currently working for an airline. These and other characteristics of the respondents are shown in tables 2 through 5.

#### STATISTICAL CONFIDENCE

Because of the high response rate achieved by the survey, the opinions expressed by the respondents are highly reliable estimates of the opinions that exist in the target population of all Marine Corps pilots and NFOs. This reliability is usually expressed in terms of a confidence interval that bounds the outcome we could expect with a 100-percent response. Thus, for example, we can be 95-percent confident that the "true" proportion of active duty pilots and NFOs with a particular opinion is within one percentage point of the proportion observed for the respondents. Since confidence intervals are proportional to sample size, the results are not quite as reliable for the

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<sup>1</sup>These areas will be identified and discussed at length later in this study.

separated pilots and NFOs. Among this group, the observed proportions are accurate to within six percentage points. Appendix C discusses confidence intervals, including computational techniques, in more detail.

TABLE 2  
CHARACTERISTICS OF THE RESPONDENTS

<u>Characteristics</u>	<u>Distribution of responses (percent)</u>	
	<u>Active</u>	<u>Separated</u>
<b>Rank</b>		
Warrant Officer	0.3	0.0
Second Lieutenant	0.1	0.0
First Lieutenant	19.6	5.6
Captain	35.1	87.6
Major	28.4	6.7
Lieutenant Colonel	11.0	0.0
Colonel	5.5	0.0
<b>Military Occupational Speciality</b>		
TACAIR	36.7	52.8
HELO	41.5	29.2
NFO	16.4	18.0
Colonel	5.5	0.0
<b>Reason for joining Marine aviation</b>		
Challenge	59.5	61.8
Service to country	21.9	24.7
Other	18.6	13.5
<b>Marital status</b>		
Single	10.4	14.6
Married	83.1	77.5
Other	6.5	7.9



TABLE 3  
CHARACTERISTICS OF THE RESPONDENTS

<u>Characteristics</u>	<u>Median</u>	
	<u>Active</u>	<u>Separated</u>
Age (years)	32.9	30.9
Commissioned service (years)	10.0	7.9
Number of dependents	2.6	2.2
Flight time		
Hours	1,877.0	1,485.0
Percent of service time <sup>a</sup>	9.8	9.8
Separation from dependents		
Years	2.5	2.2
Percent of service time	25.0	27.8
Length of work week		
Days	5.3	b
Hours per day	9.7	b
Time on current station (months)	16.1	b
Maturity of Overseas Control Date (years)	4.0	b
Time spent in tactical units (years)	1.6	b
Years of education	16.1	b

<sup>a</sup>Based on 8 hours/day, 5 days/week, 48 weeks/year.

<sup>b</sup>These questions were not asked of the recently separated group.

TABLE 4  
CURRENT JOB FIELD OF SEPARATED RESPONDENTS

<u>Field</u>	<u>Distribution (percent)</u>
Airlines	42.7
Government	4.5
Self- or unemployed	15.7
Other	37.1

TABLE 5  
GENERAL ATTITUDES TOWARD MARINE CORPS

	<u>Distribution of responses (percent)</u>
Active: Current attitude toward Marine Corps	
Very favorable	23.5
Favorable	47.4
Neutral/uncertain	12.8
Unfavorable	11.9
Very unfavorable	2.9
Separated: Retrospective attitude toward decision to resign	
Very good decision	71.3
Good decision	23.0
Uncertain	3.4
Poor decision	2.3
Very poor decision	0.0
Separated: Current attitude toward Marine Corps	
Very favorable	16.9
Favorable	48.3
Neutral/uncertain	23.6
Unfavorable	7.9
Very unfavorable	3.4

## SECTION IV

### CAREER INTENTIONS OF ACTIVE DUTY RESPONDENTS

Figure 4 represents a tangible indicator of the career intentions of pilots and NFOs over the past several years. A glimpse into the possible future is afforded by survey question number 23, in which respondents were asked to indicate their career intentions. Figure 5 shows the responses by grade. Among the field grade officers, 84 percent said they would stay to retirement. Only 22 percent of the company grade officers had similar intentions. The magnitude of this difference is consistent with projections of future manning shortfalls. It should be noted, however, that 38 percent of the company grade officers indicated flexibility by marking "undecided."<sup>1</sup> These officers can be retained--or lost--depending on the evolution of their attitudes over the next few years.

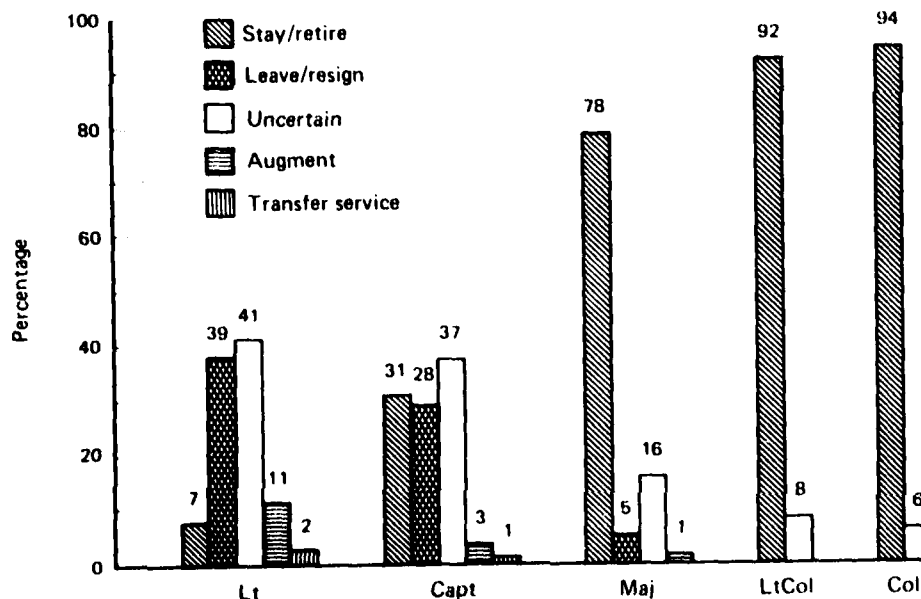


FIG. 4: CAREER INTENTIONS BY GRADE

<sup>1</sup> Respondents who marked incompatible answers were also assumed to be undecided.

The career intentions of company grade respondents are examined in more detail (by aviation community) in figure 5.

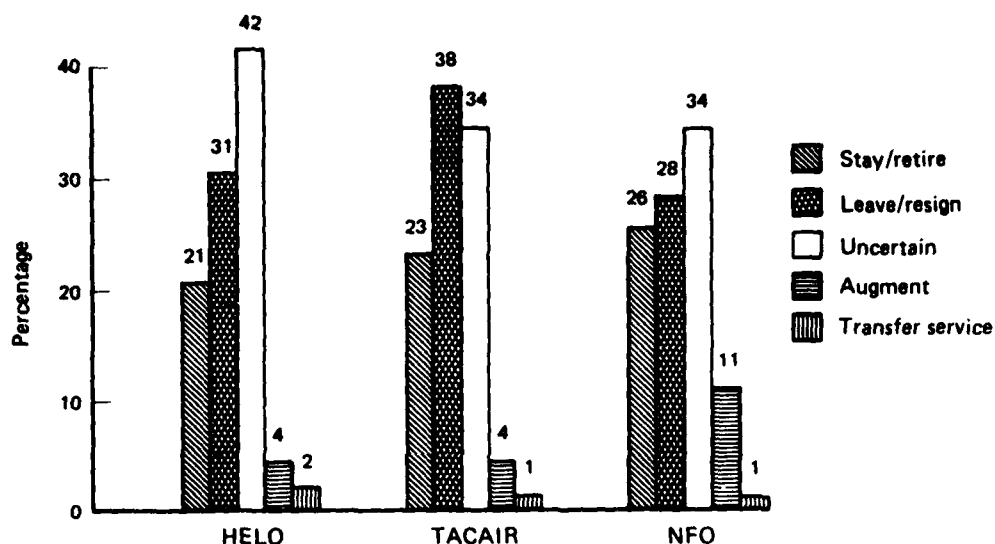


FIG. 5: CAREER INTENTIONS OF COMPANY GRADE PILOTS AND FLIGHT OFFICERS

Although the results are relatively consistent across the three groups, the following differences are noted:

- Tactical Aircraft (TACAIR) pilots are more inclined to resign;
- NFOs are more inclined to stay; and
- Helicopter pilots are more undecided.

#### WAYS TO INFLUENCE CAREER INTENTIONS

Five survey questions specifically addressed possible ways to influence career intentions: three dealt with flying, one with time-in-grade requirements (for promotion), and one with reserve augmentation. Responses to these questions are shown in tables 6 through 10. The younger company grade pilots and NFOs are seen to have stronger feelings about not flying than their field grade counterparts. Nearly three-quarters indicate that they would be encouraged to resign (some strongly) by the knowledge that their next assignment would be to a non-flying billet. Similarly, negative feelings are expressed toward the termination of proficiency flying; although it should be noted that only 45 percent indicated that this was of above average

importance as a dimension of the career decision.<sup>1</sup> Both groups view flying duty as an incentive to stay in.

Reserve officers constituted 34.0 percent of the company grade respondents and 4.3 percent of the field grade respondents. Their career intentions appear relatively independent of their expectation concerning augmentation, as shown in table 10. This may seem incongruous, but it results from the fact that only 19 percent of the respondents viewed augmentation as a possible career constraint: 65 percent thought their augmentation chances were good, and 16 percent were not interested in augmentation.<sup>2</sup>

TABLE 6  
EFFECT OF KNOWLEDGE THAT NEXT ASSIGNMENT  
WOULD BE TO A NON-FLYING BILLET

<u>Response</u>	<u>Distribution of responses (percent)</u>	
	<u>Company grade</u>	<u>Field grade</u>
Very strongly encourages retention	0.4	0.7
Encourages retention	1.4	1.2
No effect or uncertain	24.3	52.0
Encourages resignation	32.4	28.1
Very strongly encourages resignation.	41.5	17.9

<sup>1</sup>Reference: survey question number 53.

<sup>2</sup>Reference: survey question number 84.

TABLE 7

EFFECT OF KNOWLEDGE THAT NEXT ASSIGNMENT  
WOULD BE TO A FLYING BILLET

<u>Response</u>	<u>Distribution of responses (percent)</u>	
	<u>Company grade</u>	<u>Field grade</u>
Very strongly encourages retention	24.3	32.7
Encourages retention	46.0	32.4
No effect or uncertain	26.9	34.1
Encourages resignation	1.6	0.6
Very strongly encourages resignation	1.1	0.3

TABLE 8

## EFFECT OF TERMINATING PROFICIENCY FLYING PROGRAM

	<u>Distribution of responses (percent)</u>	
	<u>Company grade</u>	<u>Field grade</u>
Very strongly encourages retention	0.6	1.4
Encourages retention	2.0	6.4
No effect or uncertain	49.8	58.2
Encourages resignation	32.0	24.6
Very strongly encourages resignation	15.6	9.4

TABLE 9  
EFFECT OF TIME-IN-GRADE REQUIREMENTS

	<u>Distribution of responses (percent)</u>	
	<u>Company grade</u>	<u>Field grade</u>
Very strongly encourages retention	0.9	1.5
Encourages retention	6.1	7.8
No effect or uncertain	43.8	57.0
Encourages resignation	39.5	27.7
Very strongly encourages resignation	9.7	6.0

TABLE 10  
EFFECT OF PERCEIVED AUGMENTATION CHANCES  
(Reserve officers only)

	<u>Distribution of responses (percent)</u>	
	<u>Company grade</u>	<u>Field grade</u>
Very strongly encourages retention	7.3	9.8
Encourages retention	17.2	15.2
No effect or uncertain	57.0	53.0
Encourages resignation	13.8	16.7
Very strongly encourages resignation	4.7	5.3



## SECTION V

### ACTIVE DUTY CAREER FACTORS

The active duty survey booklet contained 95 questions: 25 addressing potentially important dimensions of the decision to stay in or leave the Marine Corps; 41 questions assessing the degree of satisfaction experienced in connection with these dimensions; and 29 general and demographic questions. A complete tabulation of survey responses appears in appendix C.

#### QUANTIFYING THE RESPONSES

For each of the questions dealing with importance or satisfaction, five possible answers were allowed, ranging from very positive to very negative. Each response was quantified by assigning a scale value as shown in table 11. An index of importance or satisfaction was then calculated for each question (dimension) by weighting the proportion of responses in each category by its scale value. Since the scale (table 11) is completely arbitrary, the indices show only the relative importance or degree of satisfaction. They are valid only for ordinal comparisons and should not be used to make interval or ratio measurements. Thus, for example, an index value of 1.5 is greater than 0.75 and indicates higher importance or more satisfaction, but not necessarily twice as much.

TABLE 11  
SCALE VALUES FOR SURVEY RESPONSES

<u>Survey response</u>	<u>Scale value</u>
Most positive response (Very high, very good, strongly agree, etc.)	+2
Least positive response (High, good, agree, etc.)	+1
Neutral response (Moderate, average, uncertain, etc.)	0
Least negative response (Low, poor, disagree, etc.)	-1
Most negative response (Very low, very poor, strongly disagree, etc.)	-2

## IMPORTANT FACTORS

The index of importance for the 25 dimensions examined in the survey ranged from +1.511 to -0.114, with a mean and standard deviation of 0.85 and 0.45, respectively. Ascribing "importance" only to those whose index value is greater than the mean, 16 dimensions emerged as important to either company or field grade officers. This result is shown in table 12, where ranking is determined by the index of importance. The main differences between the two groups are:

- Field grade officers do not ascribe importance to either pay or advancement--presumably because they have satisfied their basic needs in these areas.
- Field grade officers introduce the higher-level motivational concepts of challenge and recognition--presumably because they have satisfied (to a greater extent, at least) such basic hygienic needs as pay.

## Factor Analysis

To determine if the survey responses followed a pattern, they were subjected to an analytic technique called factor analysis (see appendix D). The assumption that underlies all factor analyses is that for any set of *n* observations or measurements, fewer than *n* independent factors are actually being observed or measured. This means that some of the measurements actually address the same basic underlying factor, although perhaps from different perspectives. Such measurements will appear highly correlated in the data. Factor analysis clusters the highly correlated measurements into a factor pattern. It is left to the analyst to interpret the pattern and identify the factor that underlies the cluster. Normally, the factor is then used as a surrogate for its components. In this application, we assume that the respondents are not expressing their attitudes about 16 independent dimensions of career decision-making, but rather that they are simply making 16 expressions of attitude toward a smaller number of basic, underlying motivational factors.

To ensure that only factors that are genuinely important are considered, only those dimensions shown in table 12 were included in the factor analysis. The results for company grade pilots and NFOs are shown in table 13. The so-called dimensions of career decision-making have clustered into four (theoretically independent) factors. We have named the factors according to the apparent intent of the component dimensions. Table 14 indicates the relative satisfaction attributed to the factors. Note that there is not a one-to-one correspondence

TABLE 12  
IMPORTANT DIMENSIONS OF CAREER DECISION-MAKING

Dimension <sup>a</sup>	Importance ranking	
	Company grade	Field grade
Marine Corps personnel management practices (32)	1	1
Belief that job is valuable/worthwhile (40)	3	2
Job satisfaction (30)	4	3
Marine Corps consideration of personal desires (45)	2	5
Future retirement programs (44)	6	4
Influence on career (43)	5	8
Unaccompanied tours (33)	9	6
Time away from family (38)	8	9
Dependent medical care (41)	10	7
Assignment to non-flying jobs (51)	7	13
Quality of life (39)	11	11
Marine Corps responsiveness to needs (50)	12	10
Challenge (48)	b	12
Advancement (46)	13	b
Job recognition (42)	b	14
Marine Corps/civilian pay differential (37)	14	b

<sup>a</sup>Parentheses reference survey questions.

<sup>b</sup>Not considered important (as previously defined) by this group.

TABLE 13  
RESULTS OF FACTOR ANALYSIS OF COMPANY  
GRADE PILOT AND NFO SURVEY RESPONSES

<u>Factor</u>	<u>Dimension<sup>a</sup></u>	<u>Index of importance</u>
Management	Marine Corps personnel management (32)	1.412
	Marine Corps consideration of personal desires (45)	1.349
	Personal influence on career (43)	1.299
	Assignment to non-flying jobs (51)	1.248
	Marine Corps responsiveness to personal needs (50)	1.033
Job content	Belief that job is valuable/worthwhile (40)	1.318
	Job satisfaction (30)	1.302
	Quality of life (39)	1.060
Family	Time away from family (38)	1.182
	Unaccompanied tours (33)	1.166
Economic	Future retirement programs (44)	1.266
	Dependent medical care (41)	1.061
	Advancement opportunities (46)	1.013
	Marine Corps/civilian pay differential (37)	0.938

<sup>a</sup> Parentheses reference survey questions.

TABLE 14  
SATISFACTION OF FACTORS IMPORTANT  
TO COMPANY GRADE PILOTS AND FLIGHT OFFICERS

<u>Factor</u>	<u>Dimension<sup>a</sup></u>	<u>Index of satisfaction</u>
Management	Marine Corps responsiveness to personal needs (59)	-0.364
	Personal influence on career (58 & 73)	-0.381
	Marine Corps consideration of personal desires (63)	-0.573
	Personnel management (55)	-0.721
	Assignment to non-flying jobs (26)	-1.133
Job content	Belief that job is valuable/worthwhile (66)	+0.691
	Job satisfaction (65)	+0.439
Family	Happiness of spouse (79)	-0.110
Economic	Marine Corps/civilian pay differential (60)	-0.069
	Advancement (67 & 68)	-0.311
	Dependent medical care (56)	-0.625
	Future retirement programs (61)	-0.992
	Aviation career incentive pay (88)	-0.993

<sup>a</sup>Parenttheses reference survey questions.

between the questions dealing with satisfaction and those dealing with importance. To quantify factor satisfaction, therefore, we examined the dimensions (questions) for which indices of satisfaction were available, and included only those that we judged could reasonably and logically be associated with the factors. Table 15 compares the relative importance and satisfaction assigned to each factor. Factor indices represent the arithmetic mean of the indices of component dimensions. Corresponding results for field grade pilots and flight officers are shown in tables 16, 17, and 18.

TABLE 15  
IMPORTANCE VS. SATISFACTION OF FACTORS  
FOR COMPANY GRADE PILOTS AND FLIGHT OFFICERS

<u>Factor</u>	<u>Index of importance</u>	<u>Index of satisfaction</u>
Management	1.268	-0.634
Job content	1.227	0.565
Family	1.174	-0.110
Economic	1.070	-0.598

Aside from a slight reordering of the factors, the principal difference between the groups is that the field grade officers do not have a clearly pay-related factor. For company grade officers, retirement and medical benefits for dependents were seen as economic issues, since they clustered with pay. For field grade officers, however, they clustered as a separate and distinct factor--while pay did not appear as an important dimension at all. In the absence of a clearly economic flavor, we have called this factor simply "benefits." Company grade officers, then, are most concerned and least satisfied with management. The corresponding factor for field grade officers is benefits. This is not surprising, since, presumably, it has been the lure of benefits such as these that has kept these officers in service long enough to attain field grade status. Recall, for example, that 84 percent of the field grade officers intend to retire.

TABLE 16  
RESULTS OF FACTOR ANALYSIS OF FIELD  
GRADE PILOT AND NFO SURVEY RESPONSES

<u>Factor</u>	<u>Dimension<sup>a</sup></u>	<u>Index of importance</u>
Job content	Belief that job is valuable/worthwhile (40)	1.455
	Job satisfaction (30)	1.413
	Quality of life (39)	1.088
	Challenge (48)	0.967
	Job recognition (42)	0.879
Management	Marine Corps personnel management (32)	1.510
	Marine Corps consideration of personal desires (45)	1.309
	Personal influence on career (43)	1.166
	Marine Corps responsiveness to personal needs (50)	1.119
	Assignment to non-flying jobs (51)	0.901
Family	Unaccompanied tours (33)	1.187
	Time away from family (38)	1.161
Benefits	Future retirement programs (44)	1.375
	Dependent medical care (41)	1.179

<sup>a</sup>parentheses reference survey questions.

TABLE 17  
SATISFACTION OF FACTORS IMPORTANT TO  
FIELD GRADE PILOTS AND FLIGHT OFFICERS

<u>Factor</u>	<u>Dimension<sup>a</sup></u>	<u>Index of satisfaction</u>
Job content	Challenge (71 & 72)	1.078
	Belief that job is valuable/worthwhile (66)	0.853
	Job satisfaction (65)	0.796
	Quality of life (64)	0.581
	Job recognition (57)	0.353
Management	Marine Corps responsiveness to personal needs (59)	-0.043
	Personal influence on career (58 & 73)	-0.089
	Marine Corps consideration of personal desires (63)	-0.226
	Marine Corps personnel management practices (55)	-0.537
	Assignment to non-flying jobs (26)	-0.613
Family	Happiness of spouse (79)	0.172
Benefits	Dependent medical care (56)	-0.708
	Future retirement programs (61)	-1.171

<sup>a</sup> Parentheses reference survey questions.



TABLE 18

IMPORTANCE VS. SATISFACTION OF FACTORS  
FOR FIELD GRADE PILOTS AND FLIGHT OFFICERS

<u>Factor</u>	<u>Index of importance</u>	<u>Index of satisfaction</u>
Benefits	1.277	-0.940
Management	1.201	-0.302
Family	1.174	0.172
Job content	1.160	0.732

From the standpoint of reducing attrition, the management and economic factors appear most significant. The respondents seem satisfied with the nominal content of their jobs, finding them both worthwhile and challenging.<sup>1</sup> They are either satisfied, or only marginally dissatisfied, with their family life. Medical and retirement benefits are largely beyond the control of the Marine Corps. These areas, then, are probably not lucrative targets for actions designed to improve retention. The management and economic factors, on the other hand, are not only important, but are significant dissatisfiers for large segments of the aviation community. Both need to be addressed if a solution to the attrition problem is to be found. Economic incentives are probably the most likely to provide immediate relief, but a long-range and continuing solution will require managerial action. Potential management and economic remedies will be more thoroughly discussed in a later section of this report.

## OTHER DIMENSIONS

Other areas of interest addressed by the survey are highlighted in tables 19 through 23. Most respondents feel that the Marine

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<sup>1</sup>It is important in this regard, however, to understand the difference between nominal and actual. The respondents apparently feel that their job, as nominally described in billet descriptions or mission statements, is both worthwhile and challenging. They also feel, however, that they are not given sufficient opportunity to actually do that job.

TABLE 19

RESPONSES TO: ATTRITION WOULD DECREASE  
IF AIRLINES WERE TO STOP HIRING

<u>Response</u>	<u>Distribution of responses (percent)</u>	
	<u>Company grade</u>	<u>Field grade</u>
Strongly agree	5.6	9.3
Agree	22.3	28.2
Indifferent	11.8	14.2
Disagree	42.9	37.6
Strongly disagree	17.3	10.7

TABLE 20

RESPONSES TO: RESIGNATION WOULD IMPROVE  
THE OVERALL QUALITY OF MY LIFE

<u>Response</u>	<u>Distribution of responses (percent)</u>	
	<u>Company grade</u>	<u>Field grade</u>
Strongly agree	22.8	12.6
Agree	39.0	33.7
Indifferent	21.9	23.6
Disagree	13.5	23.8
Strongly disagree	2.7	6.3

TABLE 21

RESPONSES TO: A SIX-MONTH UNIT DEPLOYMENT  
IS PREFERRED TO A 12-MONTH UNACCOMPANIED TOUR

<u>Response</u>	<u>Distribution of responses (percent)</u>	
	<u>Company grade</u>	<u>Field grade</u>
Strongly agree	38.6	36.8
Agree	33.3	34.3
Indifferent	8.8	9.1
Disagree	10.0	10.7
Strongly disagree	9.3	9.0

TABLE 22

RESPONSES TO: UNIT DEPLOYMENT ENHANCES RETENTION

<u>Response</u>	<u>Distribution of responses (percent)</u>	
	<u>Company grade</u>	<u>Field grade</u>
Strongly agree	10.9	14.3
Agree	35.3	37.4
Indifferent	25.1	21.2
Disagree	18.2	18.2
Strongly disagree	10.4	8.9

TABLE 23  
 RESPONSES TO: SWAG AND EAD  
 OPTIONS ARE POSITIVE CAREER INCENTIVES

<u>Response</u>	<u>Distribution of responses (percent)</u>		
	<u>Company grade</u>		<u>Field grade</u>
	<u>Regular</u>	<u>Reserve</u>	
Strongly agree	2.0	4.0	3.7
Agree	19.0	19.3	34.2
Indifferent	34.5	17.8	30.2
Disagree	32.3	34.5	24.8
Strongly disagree	12.1	24.3	7.1

Corps does not "take care of" them and that resignation would improve the overall quality of their life. In light of such attitudes, it is no surprise that attrition rates are high. Although many recently separated pilots and NFOs apparently gain employment with an airline, fewer than one-third believe that a causal relationship exists between attrition and airline hiring. The airlines, then, are seen as less of a cause than an opportunity.

Attitudes toward unit deployment are uniformly positive. Fewer than one-fifth of the respondents indicated a preference for the 12-month unaccompanied tour, and most thought unit deployment helped retention.

The Standard Written Agreement (SWAG) and Extended Active Duty (EAD) options for reserve officers were not viewed so positively, however. Only about 23 percent of the company grade reserve respondents considered the SWAG and EAD to be positive career incentives.

#### RETENTION INCENTIVES

From the standpoint of reducing attrition, these results indicate that there are two primary ways to influence retention: by providing more flying opportunities and by providing more money. Tables 24 and 25 illustrate the significant effect of flying and non-flying jobs on the career intentions of officers who have not yet decided whether to stay in or leave the Marine Corps. Approximately one-quarter of these officers would be "very strongly encouraged" to remain in service by a flying job. On the other hand, about one-third would be "very strongly encouraged" to leave if they were to be assigned to a non-flying job. Table 26 shows the effect of a flying assignment on pilots and NFOs who have already decided to leave the Marine Corps. If only half of those "very strongly encouraged" to stay actually did (stay), the result would be the retention of 26 officers who otherwise would have left. The corresponding figure for undecided officers is 217.

Turning to financial incentives, the two principal ways to provide more money are through an increased ACIP and/or a bonus. Table 27 shows the effects and costs of several such plans. The figures are from a study of economic remedies of Navy pilot attrition. The effects, therefore, are on Navy pilots, and the costs are to the Navy. Although we do not endorse any particular plan, we do support the contention that an economic incentive could be effective. We also believe that the effects shown are representative of those that would be experienced by the Marine Corps. In particular, it should be noted that bonus plans -- because they can be tailored to the problem -- are more cost-effective than ACIP increases.

TABLE 24

EFFECT OF NEXT DUTY ASSIGNMENT ON COMPANY GRADE PILOTS  
AND NFOs UNDECIDED ABOUT THEIR CAREER INTENTIONS

<u>Response</u>	<u>Distribution of responses (percent)</u>	
	<u>Flying assignment</u>	<u>Non-flying assignment</u>
Very strongly encouraged to stay	25.0	0.4
Encouraged to stay	53.2	0.9
No effect or uncertain	19.9	20.0
Encouraged to leave	0.9	37.0
Very strongly encouraged to leave	1.0	41.6
N =	675	

TABLE 25

EFFECT OF NEXT DUTY ASSIGNMENT ON FIELD GRADE PILOTS AND  
NFOs UNDECIDED ABOUT THEIR CAREER INTENTIONS

<u>Response</u>	<u>Distribution of responses (percent)</u>	
	<u>Flying assignment</u>	<u>Non-flying assignment</u>
Very strongly encouraged to stay	26.7	0.6
Encouraged to stay	45.6	0.6
No effect or uncertain	26.7	43.9
Encouraged to leave	1.1	33.3
Very strongly encouraged to leave	0.0	21.7
N =	181	

TABLE 26

EFFECT OF FLYING DUTY ON PILOTS AND NFOs WHO  
INTEND TO LEAVE THE MARINE CORPS

<u>Response</u>	<u>Company grade</u>	<u>Field grade</u>
Very strongly encouraged to stay	7.6	18.4
Encouraged to stay	44.9	53.1
No effect or uncertain	42.8	26.5
Encouraged to leave	3.2	0.0
Very strongly encouraged to leave	1.6	2.0
N =	566	49

TABLE 27

COSTS OF ALTERNATIVE PAY INCREASES AND THEIR  
EFFECTS ON NAVY PILOT RETENTION<sup>a</sup>

<u>Pay increase</u>	<u>Percent retained</u>				<u>Cost to Navy of pay increase (millions of 1978 dollars)</u>
	<u>MSR+1</u>	<u>MSR+2</u>	<u>MSR+3</u>	<u>MSR+6</u>	
None	.472	.346	.292	.199	0
3-year bonus					
\$3,000	.557	.429	.366	.252	3.4
5,000	.614	.487	.416	.286	6.3
7,000	.665	.543	.465	.322	9.8
6-year bonus					
\$3,000	.621	.504	.433	.330	6.5
5,000	.710	.603	.525	.425	13.3
7,000	.787	.691	.605	.514	21.0
ACIP					
50-percent increase	.547	.426	.365	.273	13.0
100-percent increase	.616	.506	.437	.352	29.5
\$5,000 and 50-percent ACIP increase					
3-year bonus	.682	.566	.488	.371	21.9
6-year bonus	.769	.675	.590	.502	31.2

<sup>a</sup>Source: reference 2.

## SECTION VI

### INSIGHTS FROM RECENTLY SEPARATED RESPONDENTS

The responses of recently separated pilots and NFOs offer a unique opportunity to gain special insights into the problem of attrition. These respondents presumably know the actual reasons that motivated their resignation. The active duty respondents, on the other hand, are necessarily speculating about possible reasons why they might leave.

The survey responses of the recently separated pilots and NFOs were subjected to the same type of analysis as were those of the active duty respondents. The issues (i.e., dimensions of the career decision) addressed by the survey were rank-ordered for importance. Those dimensions above mean importance were then factor-analyzed. The results, shown in tables 28 through 30, are remarkably consistent with those for the active duty group. The management factor dominates, as it did for active duty company grade officers. The economic/benefits factor, on the other hand, is missing altogether. Assignment policies, in particular, appear to be the object of great dissatisfaction. Not one separated respondent indicated that the Marine Corps was better at assigning him to his specialty (flying) than his civilian employer. Table 31 shows other Marine Corps/civilian comparisons.

Also noted is that although nearly half of these (separated) respondents have gained employment with an airline, their inclination to ascribe a cause-and-effect relationship is no stronger than that of the active duty respondents. As shown in table 32, only 26 percent of those separated thought attrition would decrease if the airlines were to stop hiring.



TABLE 28

RESULTS OF FACTOR ANALYSIS OF RECENTLY  
SEPARATED PILOT AND NFO RESPONSES

Factor	Dimension <sup>a</sup>	Index of satisfaction
Management	Personnel management (18)	1.607
	Assignment to non-flying jobs (37)	1.261
	Personal influence on career (28)	1.213
	Marine Corps consideration of personal desires (31)	1.011
Job content	Marine Corps responsiveness to personal needs (36)	0.875
	Job satisfaction (16)	1.023
	Advancement (32)	0.876
	Belief that job is valuable/worthwhile (25)	0.629
Family	Time away from family (23)	0.753
	Unaccompanied tours (19)	0.719

<sup>a</sup>Parenttheses reference survey questions.

TABLE 29  
SATISFACTION OF FACTORS IMPORTANT  
TO SEPARATED PILOTS AND NFOs

Factor	Dimensional	Index of satisfaction
Management	Marine Corps responsiveness to personal needs (43)	-0.494
	Personal influence on career (42)	-0.551
	Marine Corps consideration of personal desires (46)	-0.820
	Personnel management	-1.148
Job content	Belief that job is valuable/worthwhile (49)	+0.562
	Job satisfaction (48)	+0.315
Family	Happiness of wife/family (69)	-0.718

parentheses reference survey questions.

TABLE 30  
IMPORTANCE VS. SATISFACTION OF FACTORS  
FOR SEPARATED PILOTS AND NFOs

<u>Factor</u>	<u>Index of importance</u>	<u>Index of satisfaction</u>
Management	1.193	-0.753
Job content	0.843	+0.439
Family	0.736	-0.718

TABLE 31  
MARINE CORPS VS. CIVILIAN COMPARISONS

<u>Dimension</u>	<u>Distribution of responses (percent)</u>		
	<u>Better as civilian</u>	<u>Same or undecided</u>	<u>Better as Marine</u>
Supervisors concern for welfare	59.2	32.9	7.9
Treatment by supervisors	74.0	24.7	1.3
Recognition for performance	58.3	27.8	13.9
Accountability for performance	50.7	39.1	10.1
Assignment to job specialty	85.2	14.8	0.0
Work conditions and hours	75.3	23.5	1.2
Job satisfaction	57.3	28.0	14.6
Responsibility	36.7	41.8	21.5
Challenge	52.4	32.1	15.5
Pay	58.0	11.1	30.9
Cost of living	13.6	52.3	34.1
Medical care	72.5	18.8	8.8
Happiness of family	71.8	28.2	0.0
Competence of associates	46.9	42.0	11.1
Retirement benefits	59.7	12.5	27.8

TABLE 32

RESPONSES TO: ATTRITION WOULD DECREASE  
IF AIRLINES WERE TO STOP HIRING

<u>Response</u>	<u>Distribution of responses (percent)</u>
Strongly agree	6.7
Agree	19.1
Indifferent	15.7
Disagree	41.6
Strongly disagree	16.9

## REFERENCES

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2. Center for Naval Analyses, Study 1133, "Determinants and Economic Remedies of Navy Pilot Attrition," Unclassified, forthcoming
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5. Kish, Leslie, "Survey Sampling," John Wiley & Sons, Inc., New York, 1965

APPENDIX A  
THE REQUEST

# Memorandum

ASA-31-1bs  
3930  
DATE 15 DEC 1978

FROM: Deputy Chief of Staff for Aviation

TO: Deputy Chief of Staff for Research, Development and Studies

SUBJ: Assistance from MCOAG: Marine Corps Aircrew Resignation Rate

Ref: (a) HQO 5400.2B

1. Background. Within the past year aircrew resignations have increased significantly. Readiness concerns associated with the aviator retention problem are further complicated by current and projected shortfalls in the annual Pilot Training Rate. It is envisioned that a Marine Corps wide survey be conducted, similar to the recently completed flight instructor retention study.

2. Objectives.

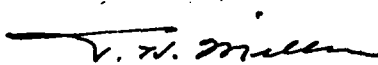
a. Determine the motivating factors affecting the resignation rate.

b. Recommend actions which might improve the retention rate of these officers.

3. Estimated level of effort required. 5-6 man months

4. Urgency. Commence 1 January 1979.

5. Point of Contact. LtCol R. C. Korman, ASA-31, X41077.

  
T. H. MILLER

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APPENDIX B

THE SURVEY

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## APPENDIX B

### THE SURVEY

This appendix contains the survey booklets used to collect data for this analysis. They were designed by MCOAG, staffed and approved by Headquarters, Marine Corps (Code ASA), and mailed during March 1979. Responses were accepted through 27 July 1979, at which time data files were closed and the analysis begun. Only two responses were received after 27 July -- they were not used.

Annex B-1 contains the survey booklet sent to Marine Corps pilots and NFOs on active duty as of 1 March 1979. Annex B-2 contains the survey booklet sent to pilots and NFOs who separated during 1978 (and for whom addresses were available). Annex B-3 contains the standard Department of Defense survey answer sheet (DD form 1815, 1 July 1971) provided for response.

ANNEX B-1

A SURVEY OF THE OPINIONS OF NAVAL AVIATORS AND  
NAVAL FLIGHT OFFICERS ON ACTIVE DUTY IN THE  
U.S. MARINE CORPS

**A SURVEY  
OF THE OPINIONS OF NAVAL AVIATORS  
AND NAVAL FLIGHT OFFICERS  
ON ACTIVE DUTY IN THE  
U.S. MARINE CORPS**



**CONDUCTED  
BY  
THE MARINE CORPS OPERATIONS ANALYSIS GROUP  
MARCH 1979**



DEPARTMENT OF THE NAVY  
HEADQUARTERS UNITED STATES MARINE CORPS  
WASHINGTON, D.C. 20380

IN REPLY REFER TO  
ASA-31-rdg  
15 FEB 1979

Dear Fellow Marine Aviator:

Aircrew availability has declined significantly throughout the Marine Corps over the past two years. The difficulties associated with aviator retention and aviator training have prompted an overall realignment of staffing priorities and a review of traditional career management policies. The adverse trend in aviator retention is an area of foremost concern. I believe, we must take action now to learn the reasons for this trend, and take the necessary actions to remedy its effects.

In the area of aviator training, efforts are currently underway to provide one hundred percent of Marine instructor requirements to the Naval Air Training Command (NATC). Among the several actions underway to minimize the attendant degradation of FMF readiness is the voluntary return of selected, highly qualified Marine Corps Reserve aviators for assignment to the Naval Air Training Command. The retention of newly designated Naval Aviators in NATC as flight instructors (Service-Graduates) is also being initiated. The Service-Graduate or Ser-Grad Program will assist the Marine Corps in attaining NATC staffing goals.

This survey conducted by the Marine Corps Operations Analysis Group is designed to provide valuable insight into several key areas which affect career decisions. When appropriate, survey results will provide the basis for more responsive management of aviator assets. In essence, we cannot continue to lose our dedicated and experienced aviators at the present rate and concurrently maintain the traditionally high state of readiness of our Corps. Your thoughtful consideration and response is vital to the success of this survey!

*L. J. LeBlanc Jr.*  
L. J. LEBLANC JR.  
Acting Deputy Chief of Staff  
for Aviation

**A SURVEY OF THE OPINIONS  
OF NAVAL AVIATORS AND NAVAL FLIGHT OFFICERS  
ON ACTIVE DUTY IN THE U.S. MARINE CORPS**

This survey booklet contains a series of questions and statements designed to ascertain your opinions concerning factors thought to be relevant to the retention of pilots and flight officers. Except where specified otherwise, please select the *single* response that you think best answers the question or describes your opinion. Indicate your choice by making a mark in the appropriate column of the enclosed DOD survey answer sheet. When you have completed the survey, please return the answer sheet in the franked and addressed envelop provided for that purpose. Please do not fold or otherwise alter the answer sheet, as it is designed to be machine-read. If you desire to make specific narrative comments, you may do so on the last page of the survey booklet and return it in the envelope with your answer sheet.

This survey is anonymous and you are encouraged to provide frank and accurate information. Complete results of the survey will be provided to all Marine Corps aviation commands later this year. Thank you for your cooperation and participation.

1. What is your present rank?

- a. Second Lieutenant
- b. First Lieutenant
- c. Captain
- d. Major
- e. Lieutenant Colonel
- f. Colonel

Questions 2 and 3 concern your *primary* Military Occupational Specialty (MOS); please answer *both* questions.

2. What is your primary MOS?

- a. 7500 - 7501
- b. 7508
- c. 7510 - 7511
- d. 7520 - 7522
- e. 7540 - 7545
- f. 7550 - 7557
- g. 7560 - 7565
- h. 7575 - 7576
- i. 7581 - 7588 or 9907
- j. 7597 - 7598

**3. What is your primary MOS?**

- a. 7500 - 7576 or 7597 - 7598
- b. 7581
- c. 7582
- d. 7583
- e. 7584
- f. 7585
- g. 7586
- h. 7587
- i. 7588
- j. 9907

**4. When were you born?**

- a. Prior to 1926
- b. 1926 - 1929
- c. 1930 - 1933
- d. 1934 - 1937
- e. 1938 - 1941
- f. 1942 - 1945
- g. 1946 - 1949
- h. 1950 - 1953
- i. 1954 - 1957
- j. After 1957

**5. When were you commissioned?**

- a. Prior to 1943
- b. 1943 - 1946
- c. 1947 - 1950
- d. 1951 - 1954
- e. 1955 - 1958
- f. 1959 - 1962
- g. 1963 - 1966
- h. 1967 - 1970
- i. 1971 - 1974
- j. After 1974

**6. When were you designated a Naval Aviator or Naval Flight Officer?**

- a. Prior to 1944
- b. 1944 - 1947
- c. 1948 - 1951
- d. 1952 - 1955
- e. 1956 - 1959
- f. 1960 - 1963
- g. 1964 - 1967
- h. 1968 - 1971
- i. 1972 - 1975
- j. After 1975

7. What was the source of your Marine Corps commission?

- a. Service academy
- b. NROTC (Regular)
- c. NROTC (Reserve)
- d. Platoon Leader's Course (Regular)
- e. Platoon Leader's Course (Reserve)
- f. Aviation Cadet program (MARCAD/NAVCAD)
- g. Officer Candidate School
- h. Other

8. What is your marital status?

- a. Single, never married
- b. Married
- c. Divorced
- d. Separated
- e. Widowed

9. How many dependents (including spouse) do you support?

- a. None
- b. 1
- c. 2
- d. 3
- e. 4
- f. 5
- g. 6
- h. 7
- i. 8
- j. 9 or more

10. What is the highest level of civilian education that you have attained?

- a. High School (graduate or GED)
- b. Two years or less college, no degree
- c. Associate Degree
- d. More than two but less than four years college, no degree
- e. Bachelor's Degree
- f. Four or more years college, no degree
- g. Master's Degree
- h. Doctorate

11. Which of the following military schools and/or educational programs have you completed (mark all applicable)?

- a. None
- b. Amphibious Warfare School
- c. Command and Staff School (any)
- d. Naval War College
- e. Special Education Program (SEP)
- f. Other

12. What is your active duty status?

- a. Regular
- b. Reserve

13. Where is your current duty station?

- a. HQMC or Quantico, Va.
- b. Cherry Point, N.C.
- c. New River, N.C.
- d. Beaufort, S.C.
- e. Camp Pendleton, Ca.
- f. El Toro or Santa Ana, Ca.
- g. Hawaii
- h. Japan (including Okinawa)
- i. Naval Air Training Command (any)
- j. Other

14. How much time do you have "on station" on your current tour (to the nearest month)?

- a. Less than 5 months
- b. 5 - 9 months
- c. 10 - 14 months
- d. 15 - 19 months
- e. 20 - 24 months
- f. 25 - 29 months
- g. 30 - 34 months
- h. 35 - 39 months
- i. 40 - 44 months
- j. 45 or more months

15. What is your present flight status?

- a. Duty Involving Flight Operations (DIFOP)
- b. Duty Involving Flight Denied (DIFDEN)
- c. Other

16. What is your present primary duty assignment? Mark only one.

- a. Wing Department Head
- b. Wing staff
- c. Group CO, XO, or Department Head
- d. Group staff
- e. Squadron or Detachment CO, XO, or OIC
- f. Squadron or Detachment pilot
- g. Flight Instructor
- h. Graduate pilot trainee
- i. HQMC
- j. Other



17. What is the average number of *days* in a typical work week in your command?

- a. 5 days or less
- b. More than 5 but less than 5½ days
- c. Exactly 5½ days
- d. More than 5½ but less than 6 days
- e. Exactly 6 days
- f. More than 6 but less than 6½ days
- g. Exactly 6½ days
- h. More than 6½ but less than 7 days
- i. Exactly 7 days

18. What is the average number of *hours* in a typical work week in your command?

- a. Fewer than 40 hours
- b. At least 40 but fewer than 45 hours
- c. At least 45 but fewer than 50 hours
- d. At least 50 but fewer than 55 hours
- e. At least 55 but fewer than 60 hours
- f. At least 60 but fewer than 65 hours
- g. At least 65 but fewer than 70 hours
- h. At least 70 but fewer than 75 hours
- i. At least 75 but fewer than 80 hours
- j. 80 or more hours

19. What is the calendar year of your overseas control date?

- a. Not applicable: currently on overseas assignment
- b. Prior to 1966
- c. 1966 - 1967
- d. 1968 - 1969
- e. 1970 - 1971
- f. 1972 - 1973
- g. 1974 - 1975
- h. 1976 - 1977
- i. 1978 - 1979
- j. Unknown

20. During your career, how much time (total, accumulated) have you spent in tactical flying squadrons or detachments?

- a. None
- b. Less than 1 year
- c. At least 1 but less than 2 years
- d. At least 2 but less than 3 years
- e. At least 3 but less than 4 years
- f. At least 4 but less than 5 years
- g. At least 5 but less than 6 years
- h. At least 6 but less than 7 years
- i. At least 7 but less than 8 years
- j. 8 or more years

21. How much flight time (hours) have you accumulated during your career?
- a. Fewer than 500 hours
  - b. At least 500 but fewer than 1100 hours
  - c. At least 1100 but fewer than 1700 hours
  - d. At least 1700 but fewer than 2300 hours
  - e. At least 2300 but fewer than 2900 hours
  - f. At least 2900 but fewer than 3500 hours
  - g. At least 3500 but fewer than 4100 hours
  - h. At least 4100 but fewer than 4700 hours
  - i. At least 4700 but fewer than 5300 hours
  - j. 5300 or more hours
22. How much time (total, accumulated) have you spent away from your dependents (wife and children) as a result of deployments and unaccompanied tours during your career?
- a. Not applicable: no dependents
  - b. None
  - c. Less than 1 year
  - d. At least 1 but less than 2 years
  - e. At least 2 but less than 3 years
  - f. At least 3 but less than 4 years
  - g. At least 4 but less than 5 years
  - h. At least 5 but less than 6 years
  - i. At least 6 but less than 7 years
  - j. 7 or more years
23. What are your present career intentions? Mark all applicable.
- a. Continue to retirement at 20 years of service (YOS)
  - b. Continue beyond 20 YOS but retire prior to 30 YOS
  - c. Continue to retirement at 30 YOS
  - d. Continue beyond 30 YOS
  - e. Resign prior to 20 YOS to pursue a job in commercial aviation
  - f. Resign prior to 20 YOS to pursue a job in government (Federal, state, or local)
  - g. Resign prior to 20 YOS to pursue a job in a field other than commercial aviation or government
  - h. Augment into the "regular" Marine Corps
  - i. Transfer to another branch of service
  - j. Undecided
24. Have you submitted a letter of resignation through official channels?
- a. Yes
  - b. No, but I do intend to leave the Marine Corps prior to becoming eligible for retirement
  - c. Not applicable — I intend to continue to retirement
25. How does the termination of the Proficiency Flying Program affect your career intentions?
- a. Very strongly encourages me to resign
  - b. Tends to encourage me to resign
  - c. No effect or uncertain
  - d. Tends to encourage me to remain in the Marine Corps
  - e. Very strongly encourages me to remain in the Corps

26. If you knew that your next tour of duty would be in a non-flying billet, how would this knowledge affect your career intentions?

- a. *Very strongly encourage me to resign*
- b. *Tend to encourage me to resign*
- c. *No effect or uncertain*
- d. *Tends to encourage me to remain in the Marine Corps*
- e. *Very strongly encourages me to remain in the Corps*

27. If, on the other hand, you knew that your next tour of duty would be in a flying billet, how would this knowledge affect your career intentions?

- a. *Very strongly encourage me to resign*
- b. *Tend to encourage me to resign*
- c. *No effect or uncertain*
- d. *Tends to encourage me to remain in the Marine Corps*
- e. *Very strongly encourages me to remain in the Corps*

28. Thinking back to the time you decided to become a Marine Corps pilot or flight officer, select the single answer that best describes your reason for joining the Marine Corps aviation program.

- a. *Family influence*
- b. *Peer influence (friends, etc.)*
- c. *I always wanted to fly, and Marine Aviation looked like a challenging profession*
- d. *I needed a job*
- e. *I wanted to serve my country and the Marine Corps seemed like the best branch of service*
- f. *A recruiter or Officer Selection Officer talked me into it*
- g. *I preferred another branch of service in which no suitable program was available*
- h. *I wanted training and experience that I could later use to get a civilian job*
- i. *I wanted the flight pay*

29. Now, select the second most important reason you joined the Marine Corps Aviation Program.

- a. *Family influence*
- b. *Peer influence (friends, etc.)*
- c. *I always wanted to fly, and Marine Aviation looked like a challenging profession*
- d. *I needed a job*
- e. *I wanted to serve my country and the Marine Corps seemed like the best branch of service*
- f. *A recruiter or Officer Selection Officer talked me into it*
- g. *I preferred another branch of service in which no suitable program was available*
- h. *I wanted training and experience that I could later use to get a civilian job*
- i. *I wanted the flight pay*

Questions 30 through 54 address factors that *could* cause a Marine pilot or flight officer to resign. We would like your opinion as to the relative importance of each factor. Please mark the answer that best expresses your opinion. Choose only one answer for each factor.

30. The amount of job satisfaction experienced in my command:

- a. *Very high importance*
- b. *High importance*
- c. *Moderate importance*
- d. *Low importance*
- e. *Very low importance*

31. The length of the work week in my command:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
32. Personnel management practices in the Marine Corps:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
33. Unaccompanied tours and/or deployments:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
34. Current tour lengths:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
35. The attractiveness of civilian career opportunities, other than commercial aviation:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
36. The fact that commercial airlines are now hiring:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
37. The difference (if any) between the total compensation (pay, allowances, and benefits) available to me in the Marine Corps and that which could be available to me as civilian if I were to resign:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance

38. The amount of time a Marine pilot or flight officer must spend away from his family:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
39. The overall "quality of life" as a Marine pilot or flight officer:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
40. The degree to which a Marine pilot or flight officer believes he is performing a worthwhile job:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
41. The quality of military medical care rendered to dependents:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
42. The amount of recognition received for accomplishment:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
43. The amount of influence a Marine pilot or flight officer has in planning his career:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
44. The uncertainty concerning changes in the military retirement system, such as those proposed by the President's Commission on Military Compensation:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance

45. The amount of consideration the Marine Corps gives to personal needs and desires before making a decision that affects the individual:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
46. The opportunity for advancement in the Marine Corps, compared to other occupations:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
47. The amount of responsibility a Marine Corps pilot or flight officer has, compared to other occupations:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
48. The amount of challenging work done by a Marine Corps pilot or flight officer, compared to other occupations:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
49. The amount of prestige the American public gives to the military profession, compared to that given to other occupations:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
50. The responsiveness of the Marine Corps to personal problems:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
51. The fact that Marine pilots and flight officers are frequently assigned to non-aviation billets:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance

52. The fact that I may be assigned to a professional school (Amphibious Warfare School, Naval War College, etc.) following my current tour:

- a. Very high importance
- b. High importance
- c. Moderate importance
- d. Low importance
- e. Very low importance

53. The termination of the proficiency flying program:

- a. Very high importance
- b. High importance
- c. Moderate importance
- d. Low importance
- e. Very low importance

54. The Marine Corps Performance Evaluation (Fitness Report) system:

- a. Very high importance
- b. High importance
- c. Moderate importance
- d. Low importance
- e. Very low importance

In answering questions 55 through 73, please mark the single answer that best indicates how you rate the overall (i.e., Corps-wide) quality or sufficiency of the factor identified:

55. Personnel management practices in the Marine Corps are:

- a. Very good
- b. Good
- c. Moderate or average
- d. Poor
- e. Very poor

56. The quality of military medical care rendered to dependents is:

- a. Very good
- b. Good
- c. Moderate or average
- d. Poor
- e. Very poor

57. The amount of recognition that I receive for job accomplishment is:

- a. Very good
- b. Good
- c. Moderate or average
- d. Poor
- e. Very poor

58. The amount of influence that I have in planning my career is:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor
59. The responsiveness of the Marine Corps to my personal needs and desires is:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor
60. The total military compensation (pay, allowances, and benefits) to which I am entitled as a Marine Corps pilot or flight officer is:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor
61. I expect that future changes to the military retirement system will result in a new system which, when compared to the current system, will be:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor
62. The current Marine Corps fitness report, as a means of evaluating officer performance, is:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor
63. The amount of consideration the Marine Corps gives to my needs and desires before making a decision that affects me is:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor



64. The overall "quality" of my life as a Marine Corps pilot or flight officer is:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor
65. The amount of job satisfaction that I have as a Marine Corps pilot or flight officer is:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor
66. The utility (i.e., value, worth) of my job as a Marine Corps pilot or flight officer is:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor
67. When compared with commercial aviation, my opportunity for advancement in the Marine Corps is:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor
68. When compared with occupations other than commercial aviation, my opportunity for advancement in the Marine Corps is:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor
69. When compared with a commercial airline pilot, the amount of responsibility that a Marine pilot or flight officer has is:
- a. Very good
  - b. Good
  - c. Moderate or average
  - d. Poor
  - e. Very poor

70. When compared with civilian occupations other than a commercial airline pilot, the amount of responsibility that a Marine Corps pilot or flight officer has is:

- a. Very good
- b. Good
- c. Moderate or average
- d. Poor
- e. Very poor

71. When compared with a commercial airline pilot, the amount of challenging work that I perform as a Marine Corps pilot or flight officer is:

- a. Very good
- b. Good
- c. Moderate or average
- d. Poor
- e. Very poor

72. When compared with civilian occupations other than a commercial airline pilot, the amount of challenging work that I perform as a Marine Corps pilot or flight officer is:

- a. Very good
- b. Good
- c. Moderate or average
- d. Poor
- e. Very poor

73. So far, the degree to which I have participated in planning and developing my career in the Marine Corps has been:

- a. Very good
- b. Good
- c. Moderate or average
- d. Poor
- e. Very poor

In answering questions 74 through 83, please mark the single answer that best describes the extent to which you agree or disagree with the statement.

74. The resignation rate of Marine Corps pilots and flight officers would drop drastically if the commercial airlines were to stop hiring pilots:

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

75. The number of hours that I work each week in my command is excessive:

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

76. Generally speaking, I am bored with my current assignment:

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

77. I believe I could improve my overall "quality of life" if I were to resign from the Marine Corps:

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

78. Life in the Marine Corps is as good as or better than what I expected when I joined:

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

79. My spouse is glad I'm in the Marine Corps:

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

80. The Marine Corps "takes care of its own":

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

81. The Marine Corps pilots and/or flight officers with whom I work (or have worked) are professionals in every sense of the word:

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

82. My chain of command is responsive to my personal problems and needs:

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

83. Decreasing the length of the work week in my command to a normal five-day work week would increase the retention rate of our pilots and flight officers:

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

If you are a Reserve officer, please answer questions 84 and 85; otherwise, go to question 86.

84. How do you rate your chances of being augmented into the Regular Marine Corps, if you were to apply? Mark only one.

- a. I believe I would be selected for augmentation and I would accept
- b. I believe I would be selected for augmentation, but I would not accept
- c. I believe I would fail to be selected for augmentation, but I would accept if selected
- d. I believe I would fail to be selected for augmentation, and I would not accept even if selected
- e. I do not intend to apply for augmentation

85. To what extent does your perception of your chances for augmentation affect your career intentions:

- a. Very strongly encourages me to remain in the Marine Corps
- b. Tends to encourage me to remain in the Marine Corps
- c. Uncertain or no effect
- d. Tends to encourage me to resign from the Marine Corps
- e. Very strongly encourages me to resign

86. To what extent do current time-in-grade requirements for promotion affect your career intentions?

- a. Very strongly encourages me to remain in the Marine Corps
- b. Tends to encourage me to remain in the Marine Corps
- c. Uncertain or no effect
- d. Tends to encourage me to resign or retire
- e. Very strongly encourages me to resign or retire

87. The Standard Written Agreement (SWAG) and the Extended Active Duty (EAD) options for reserve pilots and flight officers are positive incentives.

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

88. The current level of Aviation Career Incentive Pay (ACIP) is adequate.

- a. Strongly agree
- b. Agree
- c. Ambivalent/indifferent
- d. Disagree
- e. Strongly disagree

89. In view of reduced pilot and flight officer assets, a reduction of the current tempo of FMF training exercises and operational commitments would enhance overall retention.
- a. Strongly agree
  - b. Agree
  - c. Ambivalent/indifferent
  - d. Disagree
  - e. Strongly disagree
90. The six-month unit deployment concept is a desirable alternative to the 12-month unaccompanied WestPac tour.
- a. Strongly agree
  - b. Agree
  - c. Ambivalent/indifferent
  - d. Disagree
  - e. Strongly disagree
91. When compared with the two-deployment requirement in the six-month unit deployment concept, a single 12-month unit deployment would be preferred.
- a. Strongly agree
  - b. Agree
  - c. Ambivalent/indifferent
  - d. Disagree
  - e. Strongly disagree
92. The six-month unit deployment concept enhances Corps-wide retention.
- a. Strongly agree
  - b. Agree
  - c. Ambivalent/indifferent
  - d. Disagree
  - e. Strongly disagree
93. Thinking in terms of the prestige of occupations, how do you think the average American would rate the career of a Marine Corps pilot or flight officer in comparison with other occupations?
- a. High prestige
  - b. Above the middle but not high prestige
  - c. About in the middle of all occupations
  - d. Below the middle but not low prestige
  - e. Low prestige
94. Thinking in terms of the prestige of occupations, how do you rate the career of a Marine Corps pilot or flight officer in comparison with other occupations?
- a. High prestige
  - b. Above the middle but not high prestige
  - c. About in the middle of all occupations
  - d. Below the middle but not low prestige
  - e. Low prestige

95. My attitude toward the Marine Corps is:

- a. Very favorable
- b. Favorable
- c. Neutral
- d. Unfavorable
- e. Very unfavorable

## COMMENT SHEET

**Reference to  
Question Number**

### Comment

[illegible]

ANNEX B-2

A SURVEY OF THE OPINIONS OF NAVAL AVIATORS AND NAVAL  
FLIGHT OFFICERS RECENTLY SEPARATED FROM THE  
U.S. MARINE CORPS



**A SURVEY  
OF THE OPINIONS OF NAVAL AVIATORS  
AND NAVAL FLIGHT OFFICERS  
RECENTLY SEPARATED FROM  
THE U.S. MARINE CORPS**



**CONDUCTED  
BY  
THE MARINE CORPS OPERATIONS ANALYSIS GROUP  
MARCH 1979**



DEPARTMENT OF THE NAVY  
HEADQUARTERS UNITED STATES MARINE CORPS  
WASHINGTON, D.C. 20380

IN REPLY REFER TO  
ASA-31-rdg  
15 FEB 1979

Dear Fellow Marine Aviator:

Aircrew availability has declined significantly throughout the Marine Corps over the past two years. The difficulties associated with aviator retention and aviator training have prompted an overall realignment of staffing priorities and a review of traditional career management policies. The adverse trend in aviator retention is an area of foremost concern. I believe, we must take action now to learn the reasons for this trend, and take the necessary actions to remedy its effects.

In the area of aviator training, efforts are currently underway to provide one hundred percent of Marine instructor requirements to the Naval Air Training Command (NATC). Among the several actions underway to minimize the attendant degradation of FMF readiness is the voluntary return of selected, highly qualified Marine Corps Reserve aviators for assignment to the Naval Air Training Command. The retention of newly designated Naval Aviators in NATC as flight instructors (Service-Graduates) is also being initiated. The Service-Graduate or Ser-Grad Program will assist the Marine Corps in attaining NATC staffing goals.

This survey conducted by the Marine Corps Operations Analysis Group is designed to provide valuable insight into several key areas which affect career decisions. When appropriate, survey results will provide the basis for more responsive management of aviator assets. In essence, we cannot continue to lose our dedicated and experienced aviators at the present rate and concurrently maintain the traditionally high state of readiness of our Corps. Your thoughtful consideration and response is vital to the success of this survey!

*L. J. LeBlanc Jr.*

LEO J. LEBLANC JR.  
Acting Deputy Chief of Staff  
for Aviation

**A SURVEY OF THE OPINIONS  
OF NAVAL AVIATORS AND NAVAL FLIGHT OFFICERS  
RECENTLY SEPARATED FROM THE U.S. MARINE CORPS**

This survey booklet contains a series of questions and statements designed to ascertain your opinions concerning factors thought to be relevant to the retention of pilots and flight officers. Except where specified otherwise, please select the *single* response that you think best answers the question or describes your opinion. Indicate your choice by making a mark in the appropriate column of the enclosed DOD survey answer sheet. When you have completed the survey, please return the answer sheet in the franked and addressed envelope provided for that purpose. Please do not fold or otherwise alter the answer sheet, as it is designed to be machine-read. If you desire to make specific narrative comments, you may do so on the last page of the survey booklet and return it in the envelope with your answer sheet.

This survey is anonymous and you are encouraged to provide frank and accurate information. Complete results of the survey will be provided to all Marine Corps aviation commands later this year. Thank you for your cooperation and participation.

1. Indicate the highest rank you attained prior to separation.

- a. Second Lieutenant
- b. First Lieutenant
- c. Captain
- d. Major
- e. Lieutenant Colonel
- f. Colonel

Questions 2 and 3 concern the *primary* Military Occupational Specialty (MOS) you held as an active duty Marine; please answer both questions.

2. What is your primary MOS?

- a. 7500 - 7501
- b. 7508
- c. 7510 - 7511
- d. 7520 - 7522
- e. 7540 - 7545
- f. 7550 - 7557
- g. 7560 - 7565
- h. 7575 - 7578
- i. 7581 - 7588 or 9907
- j. 7597 - 7598

**3. What was your primary MOS?**

- a. 7500 - 7576 or 7597 - 7598
- b. 7581
- c. 7582
- d. 7583
- e. 7584
- f. 7585
- g. 7586
- h. 7587
- i. 7588
- j. 9907

**4. Indicate your marital status at time of separation.**

- a. Single (never married)
- b. Married
- c. Divorced
- d. Separated
- e. Widowed

**5. How many dependents were you supporting at the time of your separation?**

- a. None
- b. 1
- c. 2
- d. 3
- e. 4
- f. 5
- g. 6
- h. 7
- i. 8
- j. More than 8

**6. What was the source of your Marine Corps commission?**

- a. Service Academy
- b. NROTC (Regular)
- c. NROTC (Reserve)
- d. Platoon Leaders Course (Regular)
- e. Platoon Leaders Course (Reserve)
- f. Aviation Cadet program (MARCAD/NAVCAD)
- g. Officer Candidate School (OCS)
- h. Other

7. When were you born?

- a. Prior to 1939
- b. 1939 or 1940
- c. 1941 or 1942
- d. 1943 or 1944
- e. 1945 or 1946
- f. 1947 or 1948
- g. 1949 or 1950
- h. 1951 or 1952
- i. 1953 or 1954
- j. After 1954

8. Indicate the month and year of your separation.

- a. Prior to May 1978
- b. May 1978
- c. June 1978
- d. July 1978
- e. August 1978
- f. September 1978
- g. October 1978
- h. November 1978
- i. December 1978
- j. After December 1978

9. Indicate your total accumulated time in service as a Marine (to the nearest year).

- a. More than 10 years
- b. 10
- c. 9
- d. 8
- e. 7
- f. 6
- g. 5
- h. 4
- i. 3
- j. Fewer than 3 years

10. How many flight hours did you accumulate during your time in the Marine Corps?

- a. Fewer than 200 hours
- b. At least 200, but fewer than 400
- c. At least 400, but fewer than 600
- d. At least 600, but fewer than 800
- e. At least 800, but fewer than 1000
- f. At least 1000, but fewer than 1200
- g. At least 1200, but fewer than 1400
- h. At least 1400, but fewer than 1600
- i. At least 1600, but fewer than 1800
- j. 1800 or more hours

11. Indicate your active duty status at time of separation.
- Regular
  - Reserve
12. What was your last duty station prior to separation from the Marine Corps?
- HQMC or Quantico, Va.
  - Cherry Point, N.C.
  - New River, N.C.
  - Beaufort, S.C.
  - Camp Pendleton, Ca.
  - El Toro or Santa Ana, Ca.
  - Hawaii
  - Japan (including Okinawa)
  - Naval Air Training Command (any)
  - Other
13. Thinking back to the time you decided to become a Marine Corps aviator, why did you join the Marine Corps aviation program? Please select the *single* answer that best describes your reason.
- Family influence
  - Peer influence (friends, etc.)
  - I always wanted to fly, and Marine Corps aviation looked like a challenging profession
  - I needed a job
  - I wanted to serve my country, and the Marine Corps looked like the best service for me
  - A recruiter or Officer Selection Officer talked me into it
  - I preferred another service, but a suitable program was not available
  - I wanted training and experience that I would use later to get a civilian job
  - I wanted the flight pay
14. How much time were you separated from your dependents as a result of deployments or unaccompanied tours while in the Marine Corps.
- Not applicable (no dependents)
  - None
  - Fewer than 6 months
  - 6-11 months
  - 12-17 months
  - 18-23 months
  - 24-29 months
  - 30-35 months
  - 36-41 months
  - 42 or more months

15. Indicate the general field of your current job.

- a. None, unemployed
- b. Federal government
- c. State or local government
- d. Aircraft manufacturing industry
- e. Commercial airlines
- f. Education
- g. Electronics
- h. Operations research/systems analysis
- i. Self-employed
- j. Other

Questions 16 through 38 show a list of factors that *could* cause a Marine Aviator to resign. We would like your opinion as to the relative importance of each factor. Please indicate the answer that best expresses how important each factor was to your decision to resign or retire. Choose only one answer for each factor:

16. The amount of job satisfaction experienced in your Marine Corps assignment:

- a. Very high importance
- b. High importance
- c. Moderate importance
- d. Low importance
- e. Very low importance

17. The length of a typical work week in the Marine Corps:

- a. Very high importance
- b. High importance
- c. Moderate importance
- d. Low importance
- e. Very low importance

18. U.S. Marine Corps personnel management practices:

- a. Very high importance
- b. High importance
- c. Moderate importance
- d. Low importance
- e. Very low importance

19. The Marine Corps unaccompanied tours and deployments:

- a. Very high importance
- b. High importance
- c. Moderate importance
- d. Low importance
- e. Very low importance

20. Lack of proficiency flying:

- a. Very high importance
- b. High importance
- c. Moderate importance
- d. Low importance
- e. Very low importance

21. The attractiveness of civilian career opportunities, *other* than the commercial airlines:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
22. The fact that the commercial airlines are now hiring:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
23. The amount of time a Marine pilot or flight officer must spend away from his family:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
24. The overall "quality of life" of a Marine Corps pilot or flight officer:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
25. The degree to which a Marine Corps pilot or flight officer believes he is performing a worthwhile job:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
26. The quality of military medical care rendered to dependents:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
27. The amount of recognition received for accomplishments:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance



28. The amount of influence a Marine pilot or flight officer has in planning his career:
- Very high importance
  - High importance
  - Moderate importance
  - Low importance
  - Very low importance
29. The difference (if any) between the total compensation (pay, allowances, and benefits) that was available to me in the Marine Corps and that which was available to me as a civilian at the time of my resignation:
- Very high importance
  - High importance
  - Moderate importance
  - Low importance
  - Very low importance
30. Uncertainty concerning changes in the military retirement program, such as those proposed by the President's Commission on Military Compensation:
- Very high importance
  - High importance
  - Moderate importance
  - Low importance
  - Very low importance
31. Consideration the Marine Corps gives to individual *personal* likes and dislikes -- before making a decision that affects an officer:
- Very high importance
  - High importance
  - Moderate importance
  - Low importance
  - Very low importance
32. The opportunity for advancement in the Marine Corps, when compared with other occupations:
- Very high importance
  - High importance
  - Moderate importance
  - Low importance
  - Very low importance
33. The amount of responsibility a Marine Corps pilot or flight officer, has, when compared with other occupations:
- Very high importance
  - High importance
  - Moderate importance
  - Low importance
  - Very low importance

34. The amount of challenging work done by a Marine pilot or flight officer, when compared with other occupations:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
35. The amount of prestige the American public gives to the military profession, when compared with other occupations:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
36. The degree of responsiveness of the Marine Corps to individual personal problems and needs:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
37. The fact that Marine pilots or flight officers are frequently assigned to non-aviation billets:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance
38. Marine Corps performance evaluation (fitness report) system:
- a. Very high importance
  - b. High importance
  - c. Moderate importance
  - d. Low importance
  - e. Very low importance

In answering questions 39 through 47, please select the *single* answer that best indicates how you would rate the quality or sufficiency of the factor described (during the period you were in the Marine Corps)

39. U.S. Marine Corps personnel management practices were:
- a. Very Good
  - b. Good
  - c. Moderate or Average
  - d. Poor
  - e. Very poor

40. The quality of military medical care rendered to dependents was:
- a. Very Good
  - b. Good
  - c. Moderate or Average
  - d. Poor
  - e. Very poor
41. The amount of recognition that I received for job accomplishment was:
- a. Very good
  - b. Good
  - c. Moderate or Average
  - d. Poor
  - e. Very poor
42. The amount of influence that I had in planning my career was:
- a. Very good
  - b. Good
  - c. Moderate or Average
  - d. Poor
  - e. Very poor
43. The degree of responsiveness of the Marine Corps to my personal requirements was:
- a. Very good
  - b. Good
  - c. Moderate or Average
  - d. Poor
  - e. Very poor
44. The total military compensation (pay, allowances, and benefits) to which I was entitled as a Marine Corps pilot or flight officer:
- a. Very good
  - b. Good
  - c. Moderate or Average
  - d. Poor
  - e. Very poor
45. I expect the final changes to military retirement will result in a program that, compared to the current system, will be:
- a. Very good
  - b. Good
  - c. Moderate or Average
  - d. Poor
  - e. Very poor
46. The amount of consideration the Marine Corps gave to my personal likes and dislikes -- before making a decision that affected me -- was:
- a. Very good
  - b. Good
  - c. Moderate or Average
  - d. Poor
  - e. Very poor

47. My overall quality of life as a Marine pilot or flight officer was:

- a. Very good
- b. Good
- c. Moderate or Average
- d. Poor
- e. Very poor

48. The amount of job satisfaction that I had as a Marine was:

- a. Very good
- b. Good
- c. Moderate or Average
- d. Poor
- e. Very poor

49. The utility (i.e. value or worth) of my job as a Marine Corps aviator was:

- a. Very good
- b. Good
- c. Moderate or Average
- d. Poor
- e. Very poor

In answering questions 50 through 56 please select the *single* answer that best describes the extent to which you agree or disagree with the statement.

50. The resignation rate of Marine Corps aviators would drop drastically if the commercial airlines were to stop hiring pilots.

- a. Strongly agree
- b. Agree
- c. Undecided
- d. Disagree
- e. Strongly disagree

51. The number of hours that I worked per week as a Marine was excessive.

- a. Strongly agree
- b. Agree
- c. Undecided
- d. Disagree
- e. Strongly disagree

52. Civilian life is as good as or better than I expected when I resigned or retired from the Marine Corps.

- a. Strongly agree
- b. Agree
- c. Undecided
- d. Disagree
- e. Strongly disagree

53. Marine Corps life was as good as or better than I expected when I joined.

- a. Strongly agree
- b. Agree
- c. Undecided
- d. Disagree
- e. Strongly disagree

54. The Marine Corps "takes care of its own."

- a. Strongly agree
- b. Agree
- c. Undecided
- d. Disagree
- e. Strongly disagree

55. My Marine Corps chain of command was responsive to my personal problems and needs.

- a. Strongly agree
- b. Agree
- c. Undecided
- d. Disagree
- e. Strongly disagree

56. The Marine pilots and flight officers with whom I worked were professionals in every sense of the word.

- a. Strongly agree
- b. Agree
- c. Undecided
- d. Disagree
- e. Strongly disagree

57. My attitude toward the Marine Corps is (now):

- a. Very favorable
- b. Favorable
- c. Neutral
- d. Unfavorable
- e. Very unfavorable

In questions 58 through 78, compare your Marine Corps life with your life as a civilian in each of the areas mentioned.

58. Pay:

- a. Better as a Marine
- b. About the same
- c. Better as a civilian
- d. Unknown or not applicable

59. Medical care:

- a. Better as a Marine
- b. About the same
- c. Better as a civilian
- d. Unknown or not applicable

60. Recreation opportunities:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
61. Treatment by supervisors:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
62. Working conditions and hours:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
63. Concern of supervisors for your welfare:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
64. Travel:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
65. Vacation or leave:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
66. Job satisfaction:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
67. Choice of where you live:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable

68. Professional competence of job associates:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
69. Happiness of family (wife/children):
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
70. Technical training:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
71. Recognition for superior job performance:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
72. Accountability for inferior job performance:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
73. Retirement benefits:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
74. Quality of housing available:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable
75. Opportunity to work in job area for which trained:
- a. Better as a Marine
  - b. About the same
  - c. Better as a civilian
  - d. Unknown or not applicable

76. Cost of living:

- a. Better as a Marine
- b. About the same
- c. Better as a civilian
- d. Unknown or not applicable

77. Amount of responsibility:

- a. Better as a Marine
- b. About the same
- c. Better as a civilian
- d. Unknown or not applicable

78. Professional challenge:

- a. Better as a Marine
- b. About the same
- c. Better as a civilian
- d. Unknown or not applicable

79. Thinking in terms of the prestige of occupations, how do you currently rate the prestige of a Marine Corps pilot or flight officer in comparison with that of your present job?

- a. Much higher
- b. Higher
- c. Same
- d. Lower
- e. Much lower

80. In retrospect, how do you regard your decision to leave the Marine Corps?

- a. Very good decision
- b. Good decision
- c. Indifferent/undecided
- d. Poor decision
- e. Very poor decision



## COMMENT SHEET

**Reference to  
Question Number**

### Comment

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FACTORS THAT AFFECT THE CAREER DECISION OF MAINE CORPS PILOTS A--ETC(U)

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**ANNEX B-3**

**ANSWER SHEET**



SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
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18. SUPPLEMENTARY NOTES This Research Contribution does not necessarily represent the opinion of the Headquarters, Marine Corps.		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) attrition, information, job analysis, job satisfaction, Marine Corps personnel, morale, motivation, pilots, pilot studies, questionnaires, rates, response, surveys		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Over the past several years, the Marine Corps has experienced an increasingly high rate of attrition among its pilots and flight officers. Based on a survey of all active duty and some recently separated pilots and flight officers, this study identifies the issues and attitudes that motivate the career decision. Recommendations are made for reducing attrition.		

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